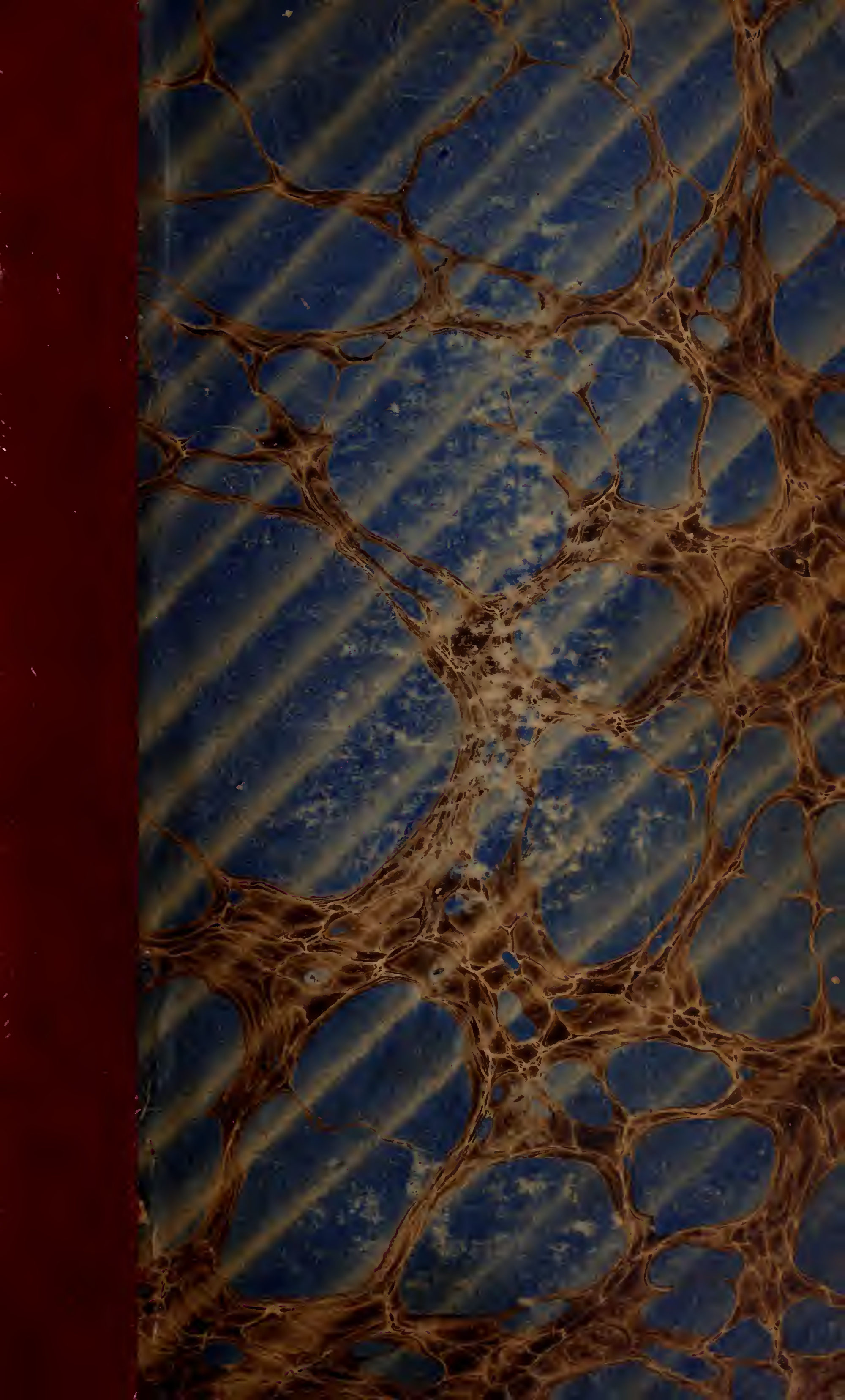

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THE

CINCINNATI

MEDICAL NEWS.

EDITED BY

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Original Contributions.

The Influence of Tobacco upon the Organs of Vision and Hearing.

BY W. R. AMICK, M. D.,
Lecturer on Ophthalmology and Otology in the Cincinnati College of Medicine and Surgery

Abstract of a Lecture delivered before the Class.

It has generally been accepted and believed that tobacco has a pernicious effect upon the organ of vision; that in some peculiar manner it has the power of reducing the functions of either the optic nerve or retina or both. While some are willing to admit that tobacco does affect the organs of special sense, there are others equally as willing to deny it. Assuming that it does, the question naturally arises, does it make any difference, so far as the effect is concerned, whether it is consumed by chewing or by smoking? In other words, which method of using it has the most deleterious effect upon the organs of special sense?

In smoking we have a condition presented which we do not have in chewing, viz.: the formation or production of a new agent. This agent is produced by heat, and is not only acrid and irritating to the mucous membrane, but poisonous to the system. However, it is not the province of this article to speak about what the various compounds are, that may be found, or how they are formed, but what effect they have upon the human system; not only the visible effect, but the manner in which it is produced.

We say that tobacco is poisonous to the system, that it produces certain subjective or objective conditions which indicate that there has been an interference with the normal function of certain organs. Yet these are only signs and do not point out the nature of the change.

When tobacco is chewed we have first the local action upon the mucous membrane of the mouth and pharynx. A certain amount is absorbed by the mucous structures and brought in direct contact with the capillaries of the circulatory system, and peripheral filaments of certain nerves. The capillaries absorb a portion of the solution that has been formed. Then we have a combined effect from that which has been taken into the circulation and a direct irritation to a portion of the nervous system.

The first effect of chewing tobacco we might denominate a local one, yet it is reflex in its action. The influence is produced from two sources. First, the mechanical effect that any foreign body will have when placed in the mouth to stimulate the salivary glands, and second, the irritation that is produced, increasing the flow of saliva. Whenever an organ is called upon to perform an increased amount of work, and especially those organs that are secretory in action, and carry on their function at the expense of some other agent, it will produce a drain upon the system which is not natural. If this excessive flow is kept up, it must be done at the expense of the system. As a result we have a reduction of vitality or resistance. The system is then placed in a condition which renders it more susceptible to disease. In some cases this becomes manifest by nervousness and an irritable temper.. The effect upon the nervous system may be sufficient to produce a tremor of the hand and fingers, or cause vertigo, nausea and vomiting. If the effect is not abated it may even cause collapse or fatal prostration. Another class, having the system habituated to the use of tobacco, find that it has a calming and soothing effect. They can while away the hours in a dreamy half stupor, while they watch the smoke curling upward forming fantastic pictures. A person that is influenced in this manner, is not unlike the opium smoker or the hasheesh eater, enjoying the exhilarating and soothing influence of the narcotic while everything assumes a pleasing attitude, and all sounds have an increased musical quality. But every wave is followed by a depression, and the latter is as much below the surface level, as the former was above it.

The same can be said of the nervous system. If we have an increased expenditure of nervous force from the use of a stimulant, this produces an exhilaration or elevation of the nervous system above its normal surface level. After the effect of the stimulant has passed away, then we have the depression following. With those who use tobacco constantly, this depression is prevented by a continued use of the drug. The effect becomes manifest when from any cause the habitue is forced to abandon it. Then we see the effect in the excited action of the heart, increased frequency of the pulse, the coated tongue, dryness of the mucous membrane of the mouth and pharynx, intense headache, fever, etc. This is the consequent depression which is sure to follow in this class of cases, when the drug is suddenly withheld.

In smoking we have another source of irritation to the mucous membrane of the throat, which we do not have in chewing, viz.: the effect of the heat combined with the smoke. It is also probable that we have a much larger amount of nicotia produced by smoking.

Nicotia or nicotin is an irritant poison, that is developed, chiefly at least, by combustion. It also appears to increase in an arithmetical ratio as the cigar is consumed. There is a much larger amount of nicotia in the short stump, than in the entire cigar before it has been lighted. The oftener the cigars is allowed to go out and then be relighted, the greater the quantity of nicotin.

Nicotia is not only a local irritant, but if introduced into the system in sufficient quantities, would destroy life. The nicotin, coming in contact and mixing with the saliva, is not only brought into contact with the mucous membrane of the mouth and pharynx, but is carried by respiration down into the trachea and lungs and up into the nasal cavities. The movements of the soft palate assist in conveying the saliva into the post nasal passages. In this manner it is carried around over the pendulous palate and is brought in contact with the mouths of the Eustachian tubes. Then we may have it pass up through the tubes by capillary attraction to the cavity of the tympanum. When we have a foreign substance in this cavity, and especially if that substance contains an irritating principle, we can easily understand the result: a congestion of the tympanic mucous membrane, with a corresponding amount of impairment of hearing. This would then be a mechanical effect produced by its local action.

We may have the hearing impaired by the nicotia or empyreumatic oil being absorbed, taken into the circulation and brought in contact with the brain and nerves. The amount that is taken into the circulation does not depend entirely upon that which is absorbed by the mucous membranes already mentioned. Quite a quantity is taken into the stomach and is introduced into the circulatory system with the food.

It does not make any special difference, so far as the ultimate result is concerned, whether the nicotia has been introduced into the system by smoking or by chewing. However, in smoking we have a larger quantity of nicotin produced than in chewing. Then smoking will produce a more decided effect upon the nervous system, causing an impairment in the function of some of the organs of special sense.

Now the question arises, how does tobacco affect the nervous system? Is there a congestion of the blood-vessels of the various organs, or do we have an anæmic condition produced? If we have a congestion of the retina or membranous labyrinth, is it local, or do we have it as a result of congestion of the base of the brain? Or is there another element, one which is peculiar to the nervous system itself, acting independently of the circulatory system so far as congestion is concerned?

The poisonous products may be taken into the circulation and carried by the arterial system to all parts of the body. The brain with its branches, the nerves, depend upon the blood for their vitality, and they receive in addition a certain amount of an irritant which, instead of assisting them to carry on their function, is gradually reducing their power. This reduction of nervous force or power, generally becomes manifest in some of the organs of special sense. This irritant does not develop what we call a congestion of the blood-vessels, and impair the function of the organs by pressure, or by producing an apoplectic condition, but it acts upon the nerves themselves.

It lessens the vitality of the nerve, and thus prevents it from properly performing its function. The retina being an expansion of the optic nerve, is influenced in a similar manner; and, as a result, we find that its sensibility is blunted. Hence, it does not receive impressions as quickly, nor define the image as distinctly as formerly. Even after the image has been formed, the optic nerve is slow in conveying the impression to the brain. As the power of conductibility in the optic nerve has been reduced, the impression is not only conveyed imperfectly, so to speak, but a portion of it is lost in transit. The impression is not so marked, and molecular change is not so great. As a result of this, we have the object presented as if enveloped in a mist, and has a hazy appearance. The common remark made by patients who have this defect of vision is, that objects look as if they were surrounded with smoke.

At the same time that we have the injurious effect upon the brain, we do not consider that that organ is necessarily first affected, and the others afterward. We incline to the opinion that in tobacco amaurosis we have the first effect upon the optic nerve and its terminal expansion.

If the nicotin is conveyed to different parts of the system by the circulation, then it becomes evident that before we have a structure influenced by this drug, it must first pass from the former to the latter. This it does along with the vitalizing force or nutrition which the tissues receive from the blood. Then, the next question is, can this change take place along the course of an artery, or is it strictly confined to the terminal capillaries? I think we can safely say, that it is given off along the course of the vessel, as well as at their peripheral distribution. Then we have the outer edge of the commissure receiving this toxic principle direct from the internal carotid, anterior cerebral and ophthalmic arteries. The carotids lie one upon either side of the chiasma, the anterior cerebral wind around from the side and cross above the nerves, while the ophthalmic arteries lie upon the external surface of the latter. Then, from this anatomical arrangement, we would have the external fibres of the commissure and optic nerve receiving the toxic principle first. Then we would naturally expect to find that portion of the disk and retina formed from these fibres the first to be implicated. This would affect the outer portion of the disk and retina, and the nasal or internal field of vision.

The nutrient vessels of the nerve and retina are derived from the ophthalmic artery, and we have the capillaries in both these organs gradually succumbing to this influence.

The first effect is the same as we would expect to be produced by any other irritant, viz.: an hyperæmic or congested conditions. Following this, we have a gradual change taking place in the nerve itself. There is a molecular or atomic change. The nicotin causes a change in the bi-polar cells. The arrangement of the cells in the optic nerve corresponds to its axis and is filamentous. By this we mean that the long axis of the cell corresponds with the axis cylinder of the nerve. But when the nerve is subjected to the influence of nicotin, there is a change takes place. There is a peculiar contraction of the cells; the transverse diameter is increased at the expense of the long axis. This change in the size and position of the cells increases the pressure upon the nutrient capillary vessels of the nerve, and many of them are obliterated. With this lessened vascularity (blood-supply) and contraction we have produced a molecular change and a different refraction, the latter being of a whitish or grayish white nature.

This change takes place in the nerve itself, and not simply in the brain. It is true that the latter organ may be influenced, but not to the same extent as the nerve.

As we have already stated, the bi-polar cells are the parts of this special organism that are first and most affected. The neural medulla may be involved to a certain extent, but a simple irritation of this structure would not produce a shadowy picture.

The cells are the organs that are chiefly called into action in the transmission of impressions from the retina to the brain. Then, anything that will interfere directly with their function, anything that will produce a change in their character, or relative anatomical condition or position, would have a tendency to obscure vision.

It must be remembered that we have the cell element existing in the retina, and that the receiving power of these is also reduced, so that the image of the object is imperfectly formed. This is commonly denominated a condition of blunted sensibility. Then we have the combined effect of an image imperfectly received, and the impression improperly conveyed to the brain. The molecular action that must necessarily take place is greatly lessened, and the reflex is as poorly transmitted as the original impression. The result of this combination is recognized by the patient as a reduction in visual power.

There is not necessarily any pain or headache, or even discomfort, except that objects are dim, as if seen in the twilight after the sun had set. This is true, for the rays from the sun of his vision have been shut out by the contracting influence of the nicotin upon the nerve elements.

The destructive influence of nicotia upon the optic nerve and retina is recognized by the physician in the history of the case, the excessive use of tobacco, especially smoking, by the attenuated condition of the retinal blood-vessels, especially the arteries, by the blanched appearance of the disk, the result of malnutrition, and in the bluish discoloration signifying a change in the cellular structure.

If the cause is recognized before a permanent structural change has been produced, before the blood-vessels have become obliterated, then, by removing it, we may have a gradual restoration, approximating at least a normal condition. The vessels may refill, and the retina and nerve return in part, at least to their normal condition. But, as the great danger is in an organic change, then, we can, at least by removing the cause, prevent further trouble.

The same can be said of the auditory nerve and membranous labyrinth. The auditory organs require as much protection as the visual. In fact, the minute anatomical structure of the cochlea is even more delicate than the retina. The change that nicotin would produce in the auditory nerve and its expansion would lower the hearing power. The anatomical change in the auditory nerve would be similar to that in the optic nerve, and the same in the membranous labyrinth as in the retina. We must remember that the impression is received in a different manner. The effect is a reduction in the power of receiving and transmitting sounds.

We have seen cases of amaurosis and were satisfied that tobacco caused it. We have also seen cases of cophosis, in which it could be demonstrated beyond doubt that nicotin was the cause. In this case the deafness followed the use of tobacco, and likewise disappeared when the drug was discontinued. When the system was under the influence of tobacco, there was very decided impairment of hearing, and he had to be spoken to in a loud tone of voice very close to the ear. When the effect had passed away, he had nearly normal hearing and heard ordinary conversation readily.

In the majority of cases the deafness is not noticed, and some might argue that this was an exceptional case. The exception simply proves the rule.

The Effect of Tobacco on the Cells in the Organs of Special Sense.

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Abstract of a Lecture delivered before the Class.

In speaking upon this subject, the first question that presents itself is, What is the office of these cells in the organs of special sense? The organs of special sense are simply mirrors through which the brain projects the workings of the mind. The cells form the great highway through which the ideas travel in passing from one organ to the other. They not only act as transmittors, but also as receivers. They are located in the terminal filaments of all the nerves of special sense, for the purpose of receiving the impressions, and then, by a continuous chain, transmitting them to the brain.

The operations of the brain are produced by impressions which are transmitted either in the form of undulations or rays to some of the organs of special sense. An impression is the result of irritation. This irritation is produced by the impinging of a ray or an undulation upon some of the cells that are located in the organs of special sense. A ray of light, for instance, after entering the eye, strikes upon the retina. The act of receiving this ray by a cell is denominated an impingement, and this produces an irritation, which is in reality a concussion, but recognized as an impression; and the latter is then conveyed to the brain by means of the cells. These cells have two or more prolongations, and are named according to the number. The external cell in a terminal filament has the receiving pole or surface directed toward the avenue through which the impression must travel to reach this organ. Thus, in the retina, we find that the external or receiving pole is directed toward the nodal point in the crystalline lens.

All communication through the cellular structure of the body is made in a longitudinal direction. It has been stated that if a human body could be suspended in the air, maintaining a horizontal position, it would become polarized, the head invariably pointing toward the North.

All electric currents upon the surface of the earth, or in the atmosphere, pass from North to South, across the equatorial line. From South to North they pass through the center of the earth. This has led some scientists to believe that there was an opening, not unlike a cylinder, in the earth's axis, extending from pole to pole. They further believed that if the north pole could be reached that this opening would be found. Whatever condition may exist, we do not believe that the daring explorer who may succeed in reaching the earth's axis, will find any opening or depression to designate the locality.

The sun's rays pass from East to West. The caloric rays coming in contact with the electric rays, which are always cold, control the vitals of all animal life. The weight or pressure of the atmosphere upon the human body is about fifteen pounds to the square inch. The caloric or heat rays warming or vitalizing the human body maintain it in its perpendicularity. Then, if suspended, the point which is most susceptible seeks the magnet; hence, as the electric currents or circulation is from North to South, the head turns toward the former to receive it.

This is the cause of the longitudinal communication between the cells of the human body. The brain is the center from which all the results of impressions emanate. The causes which produce the impressions are generally external and must be carried to the brain. Then we can see a wise provision made by the God of nature, in which we have the long or longitudinal axis of the cells, corresponding with the direction either to or from the brain. This is especially true of those cells that are directly concerned in the transmission of impressions to or from the center of intelligence in the system. It is not only necessary, then, that these cells should have a definite relation to each other, but their individuality must be maintained in a normal condition. By individuality we mean the power which they possess to properly perform their functions. This function consists in the ability to receive and transmit an impression without detracting from its influence in its passage through the cell. This is necessary in order that the amount of molecular action in the brain may be the actual equivalent of the impression received.

Anything that will interfere either with the action of the brain, or with the conductors that transmit the impressions, will have a tendency to obtund or lessen sensibility. We can not expect to have a healthy digestion with a diseased stomach; neither can we expect to have acute or sharp perception with blunted and dull organs.

A portion of the impression is used up or lost in overcoming the friction, so to speak, that has been engendered in the cells. Still another portion is lost in changing the impression to an emanation. However, this does not prevent the various senses from performing their part in this action; but it obtunds, or else calls for an increase in the force of the impression. As the latter is not apt to be realized, the brain has to be satisfied with what it receives, and the activity of the mind is reduced. At the same time that this reduction cuts off, to a great extent, the finer perceptions, it does not prevent the ordinary changes which necessarily take place in the reception and recognition of impressions.

In studying the influence of any drug or toxic principle upon the system, we must do so by ascertaining what effect it has upon the vital parts of that system. It would not be incorrect for us to say that the cellular element in the body is the medium in and through which all of the transactions of mind and brain are performed. All of the senses are transmitted through it. If we receive an injury to the foot, the impression is made upon the cells and sent by and through them to the brain. The reception produces a molecular change, and the result is sent out along or rather through another set of cells to the termination of the filaments that either received or perceived the injury.

The manner in which these impressions are conveyed from one point to another is of interest. It is very evident from the anatomical construction of the body that we do not have anything in the shape of a direct circulation or current to the brain from the various parts of the body, for the purpose of conveying the mental impressions. The force is transmitted through the nerves. Then, in what manner or how does it travel or project itself? Simply by impressions. A ray of light impinges upon a cell in the retina. This impingement is, in other words, a concussion. This produces a tremor or an impression which is communicated from one cell to another, in the same manner that the impulse upon one ivory ball is conveyed to another when they are placed in contact. The force of the blow is not confined to the first or the second, but is, apparently at least, expended upon the last one, and it is displaced or thrown away from the others. The same force which caused the last ball to change its place and position did not disturb the others, so far as locality was concerned. The impression is simply communicated from one to the other by a motion that is so slight that the relative position is not visibly changed, and its own individuality or elasticity replaces it in proper position for the next wave or impulse.

In the brain we have the last ball or cell in the chain, and here we have the force expanding and becoming manifest. It is expended in producing a certain amount of molecular change, which is equivalent to a force, and is recognized by the brain as a mental impression. The transition from the received impression to the expansion and emanation forms the mental picture that is retained by the mind, while the result is sent out by the efferent cells to the organ that received them.

The power of a cell consists in its ability to transmit all of an impression. In order to do so there is a certain amount of resiliency which must exist. During quietude the cell naturally assumes a spheroidal condition, but changes more or less during action.

Nicotin exerts a very deleterious influence over these cells, reducing their resiliency, consequently rendering them unable to perform their function normally. Moreover, it acts as an astringent upon the capsule of the cells, and the consequent contraction prevents the proper reception and transmission of impressions. I think it probable that it also prevents the change in shape of the cell from repose to action. It does not prevent it entirely, but impedes, and contact between the cells is not sufficiently marked to receive the full import of an impinging ray or wave.

After the impression has arrived in the brain, it expands or gains force. This force then becomes a motor impulse. The impulse consists in a molecular change. This is then communicated to the efferent nerve, which lies in close proximity to the afferent one. It is then transmitted to the organ which received the external impression.

The toxic influence of nicotin is not confined to any one organ, but affects all. However, they are not all influenced to the same extent, the more sensitive being the first affected. If, from abuse or disease, the sensitiveness of an organ becomes increased, it is then more liable to injury from this source; hence the manifest effect upon different organs in different persons. The direct results become apparent sooner with this than almost any other drug.

The effect that nicotin has upon the labyrinth in some cases is very pronounced. There are persons in which the effect upon the cellular element of the labyrinth and auditory nerve becomes manifest in a very short space of time. We know of a young man who has no trouble in hearing ordinary conversation when he arises in the morning; but, in fifteen minutes after he has taken a chew of tobacco, the impairment of hearing is so great that he can scarcely understand very loud conversation within a few inches of his ear. In this case the toxic principle expends itself in a most wonderful manner upon the cellular element in the organ of hearing, as the other special senses were not influenced to any appreciable extent.

The undulations in the endolymph are simply the impressions that are transmitted from the base of the stapes. The vibrations or tremor of the cilia in unison with the undulations, is the method in which the impression is received in the labyrinth. This vibration is transmitted to the cells of the auditory nerve as an impression and then conveyed to the white substance of the brain. I say the white substance, for I am satisfied that all of the operations of the organs of special sense take place in the brain, and not upon its surface.

Between the afferent and efferent nerves of all special organs there is a small layer of brain substance communicating with their internal or cerebral extremities. In this strata the force of impression expands and is brought in contact with the efferent nerve and conducted outward. We must remember that the brain is largely composed of cells, and that the toxic effect of nicotin may be produced upon these just as well as upon others. And as we have already stated the higher the function the finer the organism, and the more readily affected with toxic agents, then we would naturally expect that portion of the economy that could convert a mechanical impression into a living, active, mental force would suffer in a corresponding ratio.

The conducting cells are located in the axis cylinders of the nerves. The contact between the cells is not direct, but by means of prolongations. The nerve centers distribute the effects to all parts of the system as correctly as any instrument operated upon by an operator at the central office would distribute intelligence in all directions. The different systems of nerves become stations, receiving and redistributing the effect to all parts of the system.

The influence of nicotin upon the system is the same as any other drug or stimulant. The seed may be sown by inhaling the smoke, or swallowing the saliva that is impregnated with it. The fragrance is exhaled and the effects retained. The flower receives the dews and the light of heaven, drinking in the beauty and breathing out the fragrance, but sowing the seed, thus multiplying itself.

Treatment of Asystoly—Clinic of Prof. Henri Huchard, Hospital Tenon.

Translated from *Journal de Medicine and Chirurgie* for MEDICAL NEWS,

BY HENRY ILLOWAY, M.D.

WHEN a patient presents some of the symptoms of asystoly or cardio-vascular asthenia, it is a common habit to immediately prescribe digitalis. Without doubt, this admirable substance can be considered in the majority of cases as the *medicament for asystoly*, since its effects are to augment the arterial tension which is diminished in asystoly, and to diminish the venous tension, which, on the other hand, is increased in this morbid syndrome. But digitalis should not be prescribed in all cases of asystoly indiscriminately, as is wrongly done every day. In fact, as Mr. Huchard remarked, apropos of several patients in his service, the asystoly may arise from different causes, and even present a different symptomatology, from which we can learn how to vary our treatment.

1. Asystoly of cardio-vascular origin is observed *secondarily* in the later periods of mitral affection, much more rarely in aortic diseases; it is *primarily* observed in affections of the tricuspid valves, and also in the acute or chronic dilatations of the right heart. The history of the patient in the service is particularly instructive on this last point: The patient was suffering from primary insufficiency of the tricuspid with hepatic pulsations (battements hepatiques, pulsations in the hepatic regions); saw her affection develop under the influence of prolonged and repeated exertions in carrying up heavy burdens as high as the sixth floor, during a period of several years. The pathogeny of this affection is easily explained in this case, since, according to M. Huchard, each exertion can be, and should be, considered as a transitory asystoly. It is therefore not astonishing that prolonged and repeated efforts should have given rise to a condition of permanent asystoly.

2. Asystoly may be of *pulmonary* origin; and there are but few practitioners who have not seen it develop in the course of chronic affections of the respiratory apparatus (emphysema, asthma, bronchitis, pulmonary sclerosis, chronic pleurisy, dilatation of bronchi, etc.).

3. Asystoly may be of gastro-hepatic origin. It is well

known now, since the researches of M. Potain, Teissier, etc., that the affections of the stomach, of the intestines, of the liver, have a perceptible influence on the right heart; so that, if there exist a *cardiac liver* (art. 11,853), well studied, lately, in the thesis of Talamon, there can be said to exist, also, a *hepatic heart* (that is to say, a dilatation of the right heart coming on under the influence of an affection of the liver).

4. *It is of renal origin*, especially in cases of interstitial nephritis, where several factors may intervene to determine a condition of asystoly. In fact, according to the expression of the physician of the hospital Tenon, "Interstitial nephritis, before being a malady of the kidneys, is a disease of the cardio-vascular system," this last being characterized by the lesion of the arterial system (arterio-fibrosis of Gull and Sutton), and also by alteration of the myocardium (sclerotic myocarditis—myocardite sclereuse of Debove and Letulle). But in the renal affections, which are frequently reflected upon the stomach, we must add to the arterial and cardiac affections a third cause, the gastric troubles, which are capable of producing asystolic accidents, by provoking secondarily a dilatation of the right heart.

5. Lastly, asystoly of *nervous origin*. Besides the asystoly from overaction of the cardiac muscle, there is also an asystoly from overstimulation of the nervous plexus of the heart. It is thus that acute articular rheumatism, exerting its principal action on the nerves of the heart, may give rise to a very interesting form of asystolic rheumatism (Letulle' Peter); that exopthalmic goitre can determine, in consequence of a veritable functional overaction of the heart, asystolic accidents, very much different from those observed in this affection, in consequence of valvular complications (Debove). It is always by this same mechanism that the asystolic phenomena may manifest themselves in the course of an angina pectoris. Upon this point, Prof. Huchard recalled a very interesting observation of angina pectoris, cardiac and pulmonary, published in 1879 in the *Union Medicale*, where he demonstrates, clinically, that the troubles of cardiac innervation should certainly be reflected upon the contractility of the myocardium. This position was fortified by the decisive experiments of Eichhorst, who demonstrated the trophic influence of the vagus nerve on the cardiac muscle, and the facility with which degeneration of the myocardium is produced in birds in whom one of the pneumogastrics has been

severed. Already at that period, M. Huchard was opposed to the asystoly of *cardio-vascular origin* and the asystoly of *nervous origin*—the first characterized by disturbances of the circulation, the second by disturbed innervation; the first more particularly tractable by digitalis, the last capable of successful modification by electricity or morphia.

It will be seen from this brief exposition that the causes of asystoly are numerous, and, therefore, the indications for treatment must also be numerous.—A patient presents a well-compensated mitral affection, and who, according to the recent expression of Fernet, is in his *eusystolic* period; he contracts a pneumonia, a pleurisy, or a bronchitis, and, at once, asystolic disturbances manifest themselves. Will digitalis answer all the requirements for treatment? Certainly not. All medication must be directed against the accidental affection, the veritable exciting cause of the cardio-vascular asthenia. Here there is a capital distinction to be made; we have to deal with a *transitory asystoly* only, with only a transitory lessening of the heart's powers. Another patient suffers for some months with a *permanent* asystoly; the limbs are infiltrated, the viscera congested, the serous membranes filled with fluid, the heart is extremely dilated. In the first period, digitalis produced the best effects on the diuresis and the cardiac contractions; but very soon its action is exhausted, and cases may be cited where it is more hurtful than beneficial. It is now that other indications arise, which we will study further along, and veritable resurrections can be caused by *making* at the opportune moment a large venesection, which will have for its effect to unload the venous system and to return to the cardiac fiber a part of its power and action, which had been impaired, for a moment, by the accumulation of blood in the cavities of the heart. Another patient suffers from an aortic affection, which at a late period was reflected upon the left heart at first, and then upon the right heart, and, above all, upon the cardiac muscle; the precordial shock has become feebler, but still it does not present that ataxy that we observe in mitral affections. If it be a matter of aortic insufficiency of arterial origin, we may have paroxysms of dyspnœa and angina pectoris, which, on their part, are also reflected on the cardiac muscle. Very often in these cases, digitalis is absolutely powerless, and morphine is thrice indicated to combat the accidents of cerebral ischemia, the attacks of pain and dyspnœa. It becomes in these well-marked cases the remedy for asystoly, and more particularly the remedy for nervous asystoly. It is thus that we can say with M. Huchard, that morphine is to aortic affections what digitalis is to mitral affections.

If it be probable that in aortic affections morphine acts by combating efficiently the symptoms of cerebral ischemia, it is certain that administered at a later period in affections of the heart—whether aortic or mitral—in cases where the cardiac muscle has become feebler and feebler, it acts by its stimulant properties on the circulatory system; properties recognized in opium already long ago by Hufeland, and also by Sydenham, who called laudanum an "*excellent* cordial." If, then, digitalis is indicated especially in cases of asystoly accompanied by a certain state of ataxy of the heart, with precipitation, irregularity and tumult in the cardiac contractions, acting the role of a regulator and moderator, there are other cases where, as has been well said by Gubler, the asystoly is accompanied by a certain degree of cardiac paresis or *cardioplegie;* the contractions of the heart are less irregular, but more feeble; the valvular sounds are dull; the precordial shock insensible, and there is a continual imminence of syncope. This state of cardiac paresis can result either from enfeeblement of the heart itself, or from a general debility of the patient. Recourse must be had to alcoholic preparations, to stimulating drinks, to preparations and subcutaneous injections of ether, injections of morphine, to stimulating frictions, and also to a remedy, the employment of which in large doses has not been sufficiently recommended. We refer to caffeine.

M. Huchard brought before us a patient suffering from mitral constriction and tricuspid insufficiency, consecutive to a pulmonary emphysema, who has been under observation for nearly ten months. At the time of her admission to the hospital, her condition was very grave; almost complete asystoly, with considerable infiltration of the upper and lower limbs; ascites; œdematous congestion of the lungs; albuminaria; imperceptible pulse; precordial shock absent; the beating of the heart so feeble that, at first, one might have inclined to the idea that there was fluid in the pericardium; evening paroxysm of orthopnea, so severe that, in several instances, it was thought the patient would succumb. Digitalis in all its forms—powder, tincture, maceration—was absolutely powerless; morphine calmed the attacks of dyspnœa; but it was caffeine, employed in increasing doses from twenty-five centigrammes (three and one-half grains) to one gramme (fifteen grains) per day, that saved the patient four or five times from the menacing attacks of asystoly. Not alone does the caffeine excite the contractility of the vessels and heart, but it acts also as a diuretic; and so, also, its use was followed by the most perfect success in a patient of Prof. Gubler, suffering from mitral and tricuspid insufficiency (*Societe de Therapeutique*, November 28, 1877).

But if up to now all the good effects that might be expected from the employment of this agent have failed, it is because it has been prescribed in too feeble doses. We must, in fact, according to Huchard, commence at once with three and one-half grains, increase it progressively to seven grains, to ten grains, to sixteen grains, and even to eighteen grains. Under the influence of this agent, the quantity of urine always increases in notable proportions; as to albumen and urea they diminish, but in such irregular fashion that it is impossible to formulate any rule upon this point.

M. Huchard has experimented with caffeine in other morbid conditions; in nephritis, where its diuretic properties became manifest; in ascites due to cirrhosis of the liver, where, however, symptoms of intolerance manifest themselves, if we may be allowed to judge from two cases.

In presenting these points, it was not the intention of M. Huchard to give all the treatments for asystoly, for he has not considered the purgatives and the milk diet, which is also of great importance. He merely desired to show that asystoly is not always one and the same, but that it has numerous varieties; there must be, therefore, different remedial agents to be directed against this syndrome.

The Bacteria of Syphilis.

M. Martineau, the eminent physician to the Lourcine Hospitals, made a communication to the Academy of Medicine which is bound to make a sensation in the scientific and medical world. He believes to have discovered in conjunction with his interne, M. Hamonic, the microbe of syphilis, which is none other than a bacterium. The following is a brief extract from the communication:

"April 29, 1882, we excised an indurated chancre, and placed it in a vessel containing a quantity of culture bouillon, prepared according to the directions of Prof. Pasteur. We began operation at noon; at three o'clock the culture liquid contained a few flocculi, which troubled its transparency; at half past six a small grayish deposit had formed at the bottom of the vase, and on April 30, at ten in the morning, we discovered with the microscope the presence of numerous bacteria.

To assure ourselves of the reality of the syphilitic bacterium, we injected a quantity of the culture liquid containing bacteria with a Pravaz syringe into the penial region of a young porker of about five months.

The day after the operation we found analogous bacteria present in the blood of the animal; about a month after the inoculation, manifestations of cutaneous syphilis (*Syphilides papulo Squameuses*) began to appear on the abdomen, and the hair began to fall out.

Possessing no facts about syphilis of the pig, and in order to verify the reality of the affection inoculated by means of the syphilitic bacteria, we instituted a second experiment to serve as a comparison. For this purpose, by means of a vaccination needle, charged with the serosities collected from an infecting chancre, we inoculated a young porker a few weeks old, in the skin in the penial region.

Four days after this inoculation, an examination of the blood demonstrates the presence of bacteria analogous to those of the first experiment. Fourteen days after, the manifestation of cutaneous syphilis (*syphilides papuleuses*) appeared upon the abdomen. At first in isolated patches, then generalized, persisting for some days, disappearing completely two months after inoculation. A microscopic examination of the blood demonstrated the disappearance, likewise, of the bacteria from the blood.

Finally, to assure ourselves of the transmission of the syphilis to other animals (from one animal to the other—Tr.) by means of the bacteria found in the blood of the two pigs, we cultivate them, and with the aid of Prof. Nocart of Alfort, (an eminent Veterinary Surgeon—Tr.) we inject the culture liquid into the subcutaneous cellular tissue in the penial region of a young pig, and of a kid. The experiments have remained to this day, August 23, without any results. The blood, examined by the Professor with the greatest care, has at no time shown any bacteria. The above is a succinct summary of the experiments begun by us on the 29th of April last. If we compare our two experiments (1st, Inoculation of a young pig with syphilitic bacteria, 2d, Inoculation of a young pig with serosity from infecting chancre), we discover their similarity both as regards the development of bacteria in the blood, and the manifestations of cutaneous syphilis.

The reality of syphilitic bacteria is beyond doubt.

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The bacterium is of rod-like form, of variable length, but never larger than the diameter of a blood globule; formed of a material clear at the point and obscure if the objective be slightly raised. There is no trace of nucleus, of envelop or granulations.

These bacteria are grouped by twos (— —) following a horizontal line, either alone, or they are heaped up end to end and two by two (= =); however, between the bacteria heaped upon each other, there is a very small clear space, so that in reality there is no contact between them. In other parts of the field of the microscope, two bacteria are so piled as to form an angle more or less open; very rarely are they heaped three and three. Sometimes two bacteria seem to form but one.

These bacteria present diverse movements. The most frequent consists in a movement around an axis which would cut the animal in two, after the fashion of the magnetic needle. These movements are made from right to left, whence a rapid progression of the bacterium. Frequently a bacterium is seen to pirouette upon a transverse axis—plunging, as it were. Rarely it turns upon one of its fixed extremities, the other being mobile. The bacterium progresses indistinctly by both extremities. It can at times be seen making light undulatory movements like those of a serpent. It happens at times that two opposed bacteria move by opposite extremities. The point of opposition being fixed and representing a sort of hinge, the extremities move in an inverse direction, well represented by the figure 2.

It seems, therefore, there can be no doubt as to the existence of a microbe of the species which has been described, and in the conditions in which it has been discovered.

A great objection, and which immediately suggested itself to those present, is unfortunately raised by these very conditions, and that is, was the malady transmitted to the pig *syphilis?* The whole question lies here, and the experiments of M. Martineau have not decided it. In fact, he has so declared himself, we know nothing of the nosological character of the manifestations of syphilis in the pig. Even such masters in Veterinary medicine as Profs. Bouley and Nocart have remained undecided as to the character of the cutaneous eruption above mentioned. Is the apparent analogy of these eruptions with the papulo squamous syphilides of man, sufficient to allow of their complete assimilation and affirmation of their syphilitic nature? Nobody will venture to maintain this in the absence of the sole criterion, the transmission of the disease from one animal to another. From the impossibility of this transmission till now M. Martineau infers, it is true--for he has also essayed upon the monkey—that the syphilis of animals, especially that of the pig, is not inoculable, which would appear in rapport with the rapid evolution of the manifestations observed, the no less rapid disappearance of the bacteria and the rapid recovery from the constitutional disease. But this is reasoning a priori as if the demonstration had been made; we are more justified in saying that syphilis, being in its very nature an inoculable disease, the manifestations in the animals were not syphilis at all because of this very fact, that the disease could not be transmitted by inoculation.

The memoir has been referred to a committee composed of Messrs. Pasteur, Bouley, Lancereaux and Alfred Fournier. —*Tribune Medical*, September 17.

The Tongue under the Microscope.

BY G. P. HACHENBERG, M. D.,
Austin, Texas.

THE examination of the tongue in sickness is universally resorted to, and its diagnostic importance often supersedes that of even the pulse. In the late War, while on duty at Exchange Barracks in Nashville, Tennessee, I may venture to say of many thousands disabled soldiers, I examined nearly every man's tongue, and the pulse hardly oftener, perhaps, than one in a hundred. As this diagnostic labor tallied with subsequent examinations at the respective hospitals, to which the soldiers were assigned, I could hardly be charged with any omission of duty, at least, I do not remember that my diagnosis ever differed much with the subsequent examination of others. I state this to show the importance of the examination of the tongue as a factor in making a diagnosis. It often reveals prints of disease we can not learn from any other source.

More recently I have been led to make microscopic examinations of the tongue. With some, while no difference could be seen with the naked eye, under the glass, no two tongues could be considered to look precisely alike. These micro-lingual examinations I have made with healthy children whose constitutional and hereditary pecularities I was well acquainted with, and the tongue not only betrayed, in some of them, latent disease, but cachexia itself.

I need not enter into the pathological relations of the tongue. I believe they could be studied with great advantage under the magnifying glass, and I would respectfully ask the attention of the profession to the subject, and will be pleased to receive reports on the result of their observation for material which I hope in the future to utilize in a treatise on this subject. Any help received in this matter will be duly accredited. Authenticity would be derived from the investigations of many that could not be looked for from the researches prosecuted by one.

The tongue in the healthy subject should receive first by the aid of the glass most careful study. The examination of the healthy tongue should be made several times in the course of twenty-four hours, for the investigator will find constant changes, as induced by sleep, sleeplessness, thirst, hunger, fatigue, rest, eating, digestion, indigestion, cold and heat, etc., all having a tendency to vary its physiological expression.

And, in disease, is there not an error prevalent of limiting too much the pathological signs read from the tongue to diseases of the liver and alimentary canal? A lesion of the air passages may influence the tongue as readily as some disease of the stomach. The tongue is as much the terminus of the respiratory organs as of the alimentary canal, and is the subject of reflex influences as much in one as in the other.

JUGLANS CINEREA AS ANTI-ABORTIVE.

Doctor Bell Morelton reports several cases in which the extract of Juglans Cinerea given in the form of syrup acted well in preventing abortion. This is his formula:

Extract Hyosciam,	1 grm. (15 grs.)
Extract Juglans Cinerea,	5 grms.
Essent. Oil Sassafras,	Gtta. x.
Alcohol at 80°,	25 grms.
Bicarb. Sod.,	4 grms.
Syr. Simpl. S. S. ad ½ Lit.,	18 ℥.

This can be given in tablespoonful doses three times daily, from the time in which abortion is feared to the end of gestation. He has also used this remedy against Scrofula and Leucorrhea.—*Tribune Medical*, September 17.

Selections.

M. Gambetta.

Now that M. Gambetta is no more, the French papers are unanimous in pointing out that the symptoms manifested for several days before his death left no room whatever for any reasonable hope of a recovery. As a matter of fact, the press took its tone during his illness from the reports of the medical attendants, and, with few exceptions, held out prospects of a speedy convalescence. The exceptions were mainly in the case of publications that advocated a policy hostile to M. Gambetta, and their ominous forebodings were rather the expression of rancorous feeling toward an antagonist than the record of any supposed probability. It is now said that the reason the bulletins were so reassuring, even to the end, is that the medical attendants were anxious to prevent M. Gambetta ascertaining the real gravity of his case, which he would have done had the reports been exact, inasmuch as he could not be induced to abstain from reading the papers; but this is probably true of the last bulletin only, issued when the sufferer's condition was hopeless. As a matter of fact, the amount of adipose tissue rendered an exact appreciation of the local condition somewhat difficult; besides which, the real state of the general health, although no doubt known to his personal physician, was not sufficiently taken into account by the consultants, and the false appearance of strength led them in the first place to adopt a too lowering diet, and secondly to overlook the possibility of a sudden break-down. Now that a retrospective view can be taken, and it is known that M. Gambetta was intermittently diabetic, emphysematous, subject to varicose veins and occasionally to hæmoptysis, besides being overloaded with fat, it will be easily understood that it was in the highest degree imprudent for such a patient to be kept lying for weeks in bed on account of some local mischief in the forearm, and without the bowels being kept in a satisfactory condition. Had he been a more obscure person, M. Gambetta would have had fewer attendants, and probably have been out in his garden at the expiration of a week or so with his arm in a sling; but occupying a prominent position, it was considered advisable to multiply the number of physicians and surgeons, and to enjoin upon him the most absolute rest. As in the case of President Garfield, it was perhaps the means employed that defeated the end in view, the constipation resulting from the rest in bed being not improbably the determinating cause of the peri-cæcal inflammation, which rapidly extended to the cellular tissue of the abdominal cavity. To what extent each of the seven physicians and surgeons who signed the bulletins examined their patient at each visit it is not necessary to inquire. To say nothing of the impropriety of repeated examinations in such a case (and it is evident that those who abstained from examination were little able to follow the progress of the case), the moral effect produced by such an invasion of medical men must have been anything but salutary. If, as has been stated by the *Figaro*, M. Gambetta was credulous as regards *clairvoyance*, and had been warned shortly before by a *somnambule* that a catastrophe of some kind was imminent, it must have required some more than plausible explanation to account for the presence of so many doctors. It is somewhat strange that amongst so many eminent members of the profession there was no one able to detect the irreparable mischief going on. On Saturday evening the greatest confidence was entertained as to a speedy recovery, and Professor Charcot remarked to one of his friends, a deputy, that M. Gambetta had not the appearance of a man who was going to die. The bulletin issued on this occasion was to the effect that, although the general condition remained the same, there was an improvement in the local disease. On Sunday morning M. Gambetta was thought to be better, but in the afternoon a decrease in the body temperature made M. Lannelongue very uneasy; and whilst writing an optimist bulletin destined to be seen by the patient, he expressed his opinion that the end was near. The post-mortem examination of the body made by Professors Paul Bert, Brouardel, Charcot, Cornil, Trelat, Verneuil, assisted by Drs. Lannelongue, Siredey, Fienzal Lionville, Mathias-Duval, Laborde, Gardat and Gille, gave the following results: There was an old inflammation of the bowel which had given rise to a narrowing of the small intestine and of the ileo-cæcal valve. There was extensive purulent infiltration behind the colon and in the abdominal wall. A slight peritonitis had developed during the last hours of life. The other organs presented no lesions. To sum up, M. Gambetta died of perityphilitis and pericolitis, for which any surgical intervention could have only been dangerous. M. Gambetta belonged, it is said, to the Societe d'Autopsie Mutuelle, the members of which direct that a scientific examination of their brains should be made after death. M. Mathias-Duval has found that in the case of M. Gambetta, an important peculiarity exists in the third frontal (or Broca's) convolution. The brain as a whole is well developed, and of considerable size.—*Lancet*, January, 1883.

Obstetrics in Private Practice.

BY W. C. BURKE, JR., M. D., OF SOUTH NORWALK, CT.

THE vomiting of pregnancy, or morning sickness, is a frequent but by no means constant accompaniment of the first months of pregnancy. It usually is confined to a slight nausea and retching on rising, passing off in the course of an hour or two. Still we see all grades of the trouble, from this slight inconvenience to the most serious complication, baffling all medication, and endangering the life of our patient, necessitating the induction of abortion to save life. This nausea is often the first warning that a woman receives that she has become pregnant, and being in the majority of instances a trivial discomfort no treatment is given, or demanded, but like many other diseases of a nervous order, it is most easily relieved when it first makes its appearance. Almost everything, both in and out of the pharmacopeia, has at one time or another been lauded as curative, yet we are now and then confronted by a case that nothing will help. I believe many of these bad cases, if attention were given to them in the beginning, could be avoided.

Those remedies give the best results that act through the nervous system, holding in abeyance the reflex function of the spinal cord. Hydrate of chloral and bromide of potassa, in doses of about ten grains each, as an enema at night, has yielded to me the best results. Although simple remedies will suffice in many instances, yet rather than lose any time and run the risk of forming the habit, if I may use the expression, for all neuroses quickly become such, I give the bromide and chloral mixture at once. Then, too, it is better to check it at once, for a woman losing one or two meals a day in this way, will not receive the proper amount of nourishment, become anæmic, the vomiting increase, and the foundation be laid for more serious diseases.

The taxation upon the nervous system by pregnancy is early manifested. We have already touched upon one of its manifestations, insomnia. Others quite as serious are by no means uncommon. Nervous irritability, varying in intensity from the slightest excitability to absolute mania, is frequent enough to demand consideration from the physician, especially among our American women with their delicately strung nervous systems. Who has not seen the wife and mother, the quiet, affectionate woman of even disposition and unruffled temper, even when severely tried, transformed into a perfect Xantippe, making not only herself but all others with whom she comes in contact uncomfortable, fault-finding without the least provocation, quarreling with herself, her friends and her Maker? What is the cause? Is this the natural result of pregnancy? Can it not be avoided? Or shall it be denominated, as it is in ninety-nine cases out of every hundred, as innate cussedness? Shall at eleven o'clock at night her husband say, "Anna, I wish you would just read over this sermon and see if it is all right;" or, "Here is a lot of proof that must be returned to the printers to-morrow morning, won't you help me?" or, "Have you sewed on those buttons or mended my stockings?" while she perhaps has just safely deposited in bed one, two, three, four noisy, sleepy, peevish children with their never-ceasing questions and "mamma" here and "mamma" there, that have been born in rapid succession, following one another, so that one is hardly out of her arms before its place is filled by another. Or, in another case, called upon to fight the wolf of poverty and the lazy worthlessness, if nothing worse, of her husband, with the never-ending round of household duties, is it to be wondered at that she is quarrelsome or "nervous?" Do we, as physicians, insist, many times where we might, that the pregnant woman shall have a relief from her cares? Many times in our families this state of things is not the result of unkindness or thoughtlessness, but simply of want of knowledge, want of recognition of the extra strain that her condition entails, and we can help it; do we? But what is more frequently done is to say, "This is the result of your condition, I will give you this tonic, or nervine;

you will be better soon;" when all the nervine wanted is more sleep, more rest, more food, more blood, more outdoor air and exercise, more sympathy, less care, less work, less draft upon her from without, and less drugs "to quiet her nerves or produce sleep." She will sleep, if you will let her, before her nervous system is exhausted.

I might go on mentioning causes of nervous exhaustion by the score, but these are enough to suggest them and the relief demanded.

Of course, there is the other side to this picture. We have occasionally the patient that is lazy, indolent, spending her time lolling on feathers or the lounge, with a light novel and a paper of confections at her elbow, with nothing but her own ease and appetites to interest or employ her. To such a patient we must prescribe alterative doses of her neighbor's load.

The pregnant woman should have, as a rule, ten hours' sleep, in a room, if possible, at about 60° Fahr., well ventilated, which is the more essential in this condition, on account of the increased amount of carbonic acid exhaled by the lungs. If possible, she should sleep in a bed by herself, both on her own account and that of her husband. She should take moderate exercise daily, in the open air, weather permitting. A certain moderate amount of time should be devoted to self-culture (to say nothing of the child, for I am a believer in pre-natal influences), for perfect health demands use, without abuse, of all our functions, mental and physical.

Dentists tell us that caries of the teeth progresses very rapidly during and in the few months following pregnancy. A member of that profession told me a short time since that he had seen a perfectly sound set of teeth, more than once, entirely destroyed during and shortly after a single pregnancy. The reason for this is the demand made upon the mother's organism for lime salts to supply the developing bones of the fœtus; and if this demand is not met through the medium of the food or by their direct supply in medicine, nature absorbs it from the teeth and bones of the mother. Osteomalacia and kindred diseases commonly have their origin in puerperal women, and the want of a sufficient supply of lime salts during pregnancy is probably one factor in their causation.

This indication is to be met by avoiding too exclusive a diet of wheat flour, potatoes and other vegetable articles almost entirely made up of starchy elements. The use of meat, oatmeal, graham flour, and other foods containing lime and the exhibition of medicinal substances containing it, if necessary, will avoid trouble for the mother and rachitis in the child. All these diseases are more prevalent in countries where the diet is largely made up of farinaceous articles.

In primipara at least, about the sixth month, there should be an examination made to determine as to the existence or not of pelvic deformity or the presence of intra-pelvic tumors, or anything else that would be likely to complicate labor or jeopardize the safety of mother or child. If such be found, then the question arises as to whether, if a tumor, it can be removed or pushed up out of the pelvis out of the way. If bony deformity be found, the amount of such contraction is to be estimated, and by measurement we will determine whether at full term there will be room for the passage of the child; if not, how soon we shall be compelled to bring on premature labor, giving the child as long a period of intra-uterine life as will be compatible with safety to itself and its mother. If this rule were uniformly carried out, there would but seldom be the necessity for such operations as craniotomy, embriotomy, cephalotrypsy, gastro-eletrotomy, cæsarean section, with inevitable sacrifice in all but the last two, of one life, and in many instances of both, until like the young physician in Wisconsin, we shall be obliged to say to those inquiring after our patients, "I have lost the mother and child, but by the grace of God I hope to save the father."

At each period in the month, all through pregnancy, but particularly the last three months, at which the catamenial flow would have appeared if pregnancy had not supervened, we should caution our patient against undue exertion, recommending that as much of the three or four days as possible be spent in a recumbent posture; and certainly on the appearance of the least threatening circumstance, she shall immediately go to bed and remain until all danger is passed. I have by this means, in two instances, succeeded in carrying women to term who had formed the habit of aborting when they reached a certain point in their pregnancy, one at three, and the other at seven months. As pregnancy advances our watch of the patient should be increased, and examination of urine be more frequent, at least twice a month; and if anything abnormal is found, much oftener.

If she is apprehensive and looking forward to her confinement with dread, every effort should be made to buoy up and encourage her, and if she finds us interested and guarding against possible danger without being so solicitous as to increase her apprehension, it will strengthen her confidence in us and allay fear. There often are other matters pertaining to her health and comfort that we can correct. A tonic may be needed, or if she lives in a district where malaria is prevalent, we should guard against that. Pregnancy seems to hold in abeyance the manifestation of malarial poisoning, as it does phthisis and other diseases for the time being, but as soon as the woman is confined they manifest themselves, and are apt to be more violent. Quinine, or preferably in my opinion, some of the other salts of cinchona, either alone or better combined with other anti-periodics and nux vomica, should be given. Iron, if given at this time, should be used guardedly, if at all. In short, everything should be done that the woman may come up to the time of confinement in the best possible tone—morally, mentally and physically.

Strong objections have been raised against the use of quinine, and to a less extent against the other salts, in pregnancy, on account of their supposed oxytocic properties, but I think from mistaken reasoning; laying to the charge of quinine what really belongs to the account of the disease for which it is given, malaria. Dr. Henry F. Campbell, of Augusta, Ga., has given this subject exhaustive study and combined the results he arrived at in a paper before the American Gynecological Society last year; and the fallacious, as I believe, impression as to this effect of quinine is so general, that I incorporate his conclusions here:

1. "The constant use of quinine in malarial districts of the South controverts the belief in its oxytocic properties.

2. "Paroxysmal neuroses endanger the prosperity of pregnancy. Quinine should be given to prevent, instead of withheld for fear of producing abortion, as there is far more danger from the association of chills and fever with the pregnant state than from the administration of the remedy.

3. "The pains of miasmatic fever often simulate those of pregnancy, and abortions in fever districts will often be found to have been preceded by diurnal or nocturnal headache, pains in the lower extremities, and recurring uterine pains.

4. "Paroxysms of a local or general form, without fever, often threaten the continuance of pregnancy. Malaria may

exist in the system without manifesting its presence by the cold, hot and sweating stages.

"Cases reported where periodical uterine pains, apparently those of a miscarriage, occurred, but without fever, were promptly relieved by quinine pushed to cinchonism. Several relapses occurred subsequently, in which the effect of the medicine was always the same."

In two cases in my own practice I have seen paroxysmal neuroses closely resembling labor pains of second stage, yet without uterine action, as shown by the condition of the os. In one case, the pains came on in the latter part of the afternoon every day; in the other, they appeared at a regular hour every other day. As soon as I became aware of this periodicity I gave full doses of quinine, which at once gave relief. In the first case mentioned, these attacks returned several times, and each time were amenable to the same treatment, the woman going to term.

Complete Congenital Extroversion of the Bladder.

In a recent number of the *Boston Medical and Surgical Journal*, there is reported a case of this malformation in the clinic of Prof. David W. Cheever. We copy Prof. C.'s description of it, omitting the description of the operation he performed for the amelioration of the child's condition. We will mention that, several years ago, we met with a man suffering from the same malformation.—ED. MEDICAL NEWS.

WHILE the next patient is being etherized, I will say a few words about the case, and will then demonstrate the pathological condition, and afterwards perform the operation in your presence. It is a girl, six years of age. She presents a defect of the fœtal development. The anterior abdominal walls have never completely closed along the median line of the body. There is no umbilicus. The recti muscles separate at a point above where the umbilicus should be, and spread out at an angle, till they become attached to the pubes at quite a distance one from the other. The pelvic bones themselves are separated by a wide interval. The anterior wall of the bladder is absent, and the posterior surface of the mucous membrane is presented to view with the ureters discharging upon it. The interior of the bladder is thus exposed to the air. When the patient is at rest the exposed surface is comparatively flat, but when she coughs, vomits or strains, it rises up and is pushed forward, in shape and size like a billiard ball; it then bleeds readily, and, as you can imagine, is much irritated by the clothing. There is no urethra, clitoris or nymphæ. The labia majora lie to the sides by the separated pubic arch. There is a rudimentary vagina, which, as has been noted in other similar cases, lies transversely. The probe enters the vagina an inch and a quarter, and sweeps on either side into a pouch, which is the analogue of the Douglas' cul-de-sac in the normal female. The finger introduced into the rectum discovers a small ovoid body, which is probably the rudimentary uterus. The rectum itself appears to be normal.

This is, then, a case of complete exstrophy of the bladder, a disease rare in itself, and especially uncommon in this sex. Of forty recorded cases, only seven occurred in females. The inconveniences of the condition are obvious. The child is kept always wet by the trickling urine; excoriation of the skin follows. The tumor is exposed to a constant friction. The mouths of the ureters being constantly irritated, may become blocked by a phosphatic deposit, which is a source of danger. Yet the condition is not inconsistent with life. This child is likely to grow up. Instances have been recorded in which persons thus afflicted have reached the age of seventy or eighty years.

From separation of the recti, and general weakening of the abdominal walls, we find that this deformity often gives rise in males to double inguinal hernia. In this child the rings are elongated, narrow slits, against which the intestine can be felt on cough, but into which it does not enter. The child is, therefore, thus far free from hernia; moreover, her digestion and other functions are good, and she may be considered healthy.

Now, on uncovering the parts, you will see that at a point a little below where the umbilicus should be, there is a crescentic line, where the transversalis fascia ends. Below this the tissues are soft, consisting only of the skin and peritonæum over the intestine. Below this is the convex surface of the tumor, presenting a groove with two lateral lobes, and in shape looking not unlike the conventionalized "heart" depicted on playing cards. This is the trigone, and on the edge are the two ureters, which admit, as you see, a fine probe, and are constantly oozing with urine. You see the rudimentary labia, and the absence of the nymphæ. This transverse slit, looking like the meatus, is in reality the ostum vaginæ. Below, the perinæum and raphe are normal. The excoriations about the anus, looking like condylomata, are due simply to the irritation of the urine. The fullness which you see over the separated pubic bones is due chiefly to fat, and in the male often contains a double inguinal hernia. But here, as I have said, the ring is empty. My finger and thumb are on the spines of the pubes, which by measure are nearly three inches apart. Above the bladder the angle formed by the receding recti can be readily seen. The existence of the urachus is denied in these cases. The umbilical cord is attached about the upper edge of the bladder, and here the umbilical vessels terminate. The deformity is due in these cases to a failure of the anterior layer of the allantois to close. The smallest degree of the same abnormality is seen in the condition known as epispadias. A few years ago there was a man who earned his living by going about the country and exhibiting his extroverted bladder before the various medical classes.

Malaria Treated with the Tincture of Iodine.

Dr. Robert B. Morrison, in *Maryland Medical Journal,* says: "The use of iodine in treatment of intermittent fever is by no means new.

"'Stille and Maisch, in their Dispensatory, under the head of 'Iodine and its Uses,' say: 'In intermittent fever iodine displays decidedly curative virtues, both in tropical malarial regions and in those of temperate zones. The tincture has been given in doses of from five to fifteen minims largely diluted.'

"'So successful have we been with iodine, we always order it now in intermittent fever of the acute sort. We give it to pregnant or nursing women; we give it where there is diarrhœa or constipation; and we have only heard, out of these 250 cases, from two where chills had not been controlled by it. The dose is a pleasant one, and the opinion of the patients is decidedly in favor of taking it instead of the bitter malarial mixture. In only one case was nausea caused by it. In this case the dose was decreased to one-half the regular dose, and a cure effected. We had no case of iodism, nor did we discover any albuminuria. The patients, as is natural after an acute disease, generally need a tonic, and this we always order in the form of iron or one of the bitters.

"In conclusion, I will say the treatment is an established fact at the dispensary, and is carried out by the experience of others elsewhere and in private practice. Dr. Hoffman has tried it at the jail with success, and is, after having seen it so often given, quite as much convinced as I am of its efficacy."—*Druggists' Circular.*

Removal of Warts.

Dr. Unna, of Hamburg, reports the case of a young girl under his charge whose dorsal surfaces of both hands were the seat of over a hundred warts, daily more making their appearance. He made on gauze tissue a plaster mass, which contained ten parts arsenic and five parts of mercury. This was kept on during day and night. Two weeks later all warts had disappeared, and the healthy skin was seen. The cure here is not established by necrosis and the dropping off of the excrescences, but, like nature's spontaneous cure, by resorption.

The *Med. and Surg. Reporter*, in commenting on the above case, says: "We ourselves used to make cauterization our main treatment for the removal of condylomata. A year ago a patient came to us, who, besides suffering from icterus, due to catarrhal inflammation of the bile ducts, was affected with condylomata also. As the latter were very large, preventing the prepuce from being drawn forward, their removal was desirable. They gave rise to an annoying itching and to a fetid odor. Not wishing to operate on them while the patient still had the jaundice, we told him to dust the parts daily with: ℞. Hydrarg. muriat. mit., ʒj; acid. borac. pulver., gr. x. M. Fiat pulvis, and were not a little astonished to find three weeks later not a sign of them left. They were all absorbed. Since then we have often had occasion to use this powder, and invariably with the same good success."—*Druggists' Circular.*

Fractures, Dislocations, Injuries, Tumors, etc.

AMPUTATION AT THE KNEE-JOINT.

Dr. J. S. Wight (Proceedings of Med. Soc. of County of Kings):—The operation which I have performed at the knee-joint may be described as follows:

First.—There are three important landmarks to be noted: (1) *The head of the fibula;* (2) *The inner tuberosity of the tibia;* (3) *The patella:—The head of the fibula is the leading landmark.*

Second.—The knee-joint may be found by flexing the leg so as to meet the thigh at a right angle. The surface of the upper end of the tibia will be under the posterior surfaces of the condyles of the femur, and at a distance from the front of the femur equal to the antero-posterior diameter of the femoral condyles will be found the knee-joint; or, when the leg is fully extended, the most distal point of the patella will not be far from the knee-joint.

Third.—The head of the fibula is generally about one inch below the knee-joint. The apex of the patella does not always, however, mark the position of the knee-joint. But the head of the fibula has a constant relation to the upper end of the tibia, while the patella has a variable relation to the upper end of the tibia as the leg is flexed and extended.

The following points of my operation may now be noted, namely:

1. Find the position of the knee-joint, by observing the position of the apex of the patella, when the leg is extended, and by observing the upper end of the tibia, when the leg is semi-flexed. The surgeon can be quite sure of finding the knee-joint by observing these two points.

2. Find the head of the fibula, which will in general be easily felt about one inch below the knee-joint. The initial incision should always begin on the top of the head of the fibula and extend directly downward on the fibula about three or four inches, and should be made down to the bone. In this way the inferior external articular artery will not be cut.

3. A second incision should now be made on the inner side of the leg, directly opposite the head of the fibula, beginning over the posterior part of the tuberosity of the tibia, and extending directly downward along the posterior border of the tibia, so that the knife will move mostly back of the bone, a distance of three or four inches. The inferior internal articular artery may or may not be cut.

4. A third incision, nearly transverse, but having a slight convexity downward, must now be made, across the anterior aspect of the leg, from the second to the first incision, nearly three inches below the knee-joint—*down to the bone.*

5. These three incisions mark out the anterior flap—which must contain the soft parts down to the periosteum. To dissect up all the tissues of the anterior flap down to the periosteum all the way up to the knee-joint is an important part of the operation. In making the anterior flap the

anterior tibial recurrent artery will soon be cut, and will by its anastomoses aid in supplying blood to the tissues composing this flap.

6. The tendo-patellæ must be cut through, directly over the joint, leaving the patella in the upper part of the anterior flap. In case of disease making it difficult to find the knee-joint, place the edge of the knife across the joint as nearly as possible, and rock the blade up and down, at the same time pressing backward, and when the knife is in the right place it will cut into the joint.

7. (1) The soft parts must now be dissected up from the bone and the external lateral ligaments to the knee-joint, where these ligaments must be cut through into the joint.

(2) The soft parts must then be dissected up from the bone and the internal lateral ligament to the knee-joint, where this ligament must be cut through into the joint.

(3) It is not always easy to raise up the soft parts on the sides of the joint; but with care during flexion of the leg, this step in the operation can generally be accomplished without much delay.

(4) The inter-articular cartilages must, in the next place, be divided, whilst the leg is being flexed more and more toward a right angle with the thigh, leaving the semi lunar cartilages attached to the upper end of the tibia. During this step of the operation care must be taken to avoid cutting the cartilage on the femoral condyles, although I have never seen any harm come, when thin slices of this cartilage have been cut off by the amputating knife as it finds its way through the knee-joint.

8. An amputating knife must now divide the posterior ligament well down, close behind the upper end of the tibia, the blade being placed against the bone, and in the first and second incisions cutting a posterior flap about one inch longer than the anterior flap. When the knife comes out of the tissues, it should be almost directly backward, or as the limb is placed, directly downward, so that this flap will be nearly quadrangular. Nearly all of the muscular tissue may now be removed from this flap by the amputating knife. If the inferior internal articular artery has not been cut before, it will be liable to be cut in making the posterior flap, but this does not appear to interfere materially with the arterial supply.

9. (1) The artery, which lies near the bone, is now tied. In one instance of high bifurcation I tied the tibial arteries.

(2) The vein, which lies next to the artery, is then tied, to prevent hemorrhage in the first place, and at a later period to prevent absorption of septic material.

(3) The nerve, which lies nearer the surface, is drawn out and cut off, to prevent, as far as possible, an irritable and painful stump. I desire to draw especial attention to the ligation of the vein and the excision of the end of the nerve, because I am confident these are two points of good surgical practice.

10. When the flaps are completed, the base of the anterior will be about one inch wider than the base of the posterior flap, and the points where the first and second incisions began will be drawn up to the distal end of the femur, but the anterior flap will easily and completely cover the femoral condyles, and the patella will fall well into the inter-condyloid groove. The posterior flap will appear to be too long, and the surgeon may be tempted to make it shorter, especially if he has in mind the operation of Carden. Let not this mistake be made, for the soft parts on the posterior aspect of the thigh have a marked tendency to contract, and the line of union of the flaps will finally be on the lower and posterior part of the femoral condyles: Thus, leaving the anterior flap to cover the entire lower—or distal—surface of the femoral condyles, so that pressure can be made on the end of the stump without making pressure on scar-tissue.

11. Let me go back a little in my description: After the hemorrhage has been arrested, a drainage tube is put between the bases of the flaps against the femoral condyles, so that an end will project from each side. The patella, as before noted, is left in its normal place on the condyloid end of the femur. The first suture should be put through the middle of the ends of the flaps. The flaps may then be brought together from this point in the directions of the outset of the two primary incisions, by means of sutures.

12. The stump is now laid on a bed of oakum. A cover of oakum is laid over the stump. A wide sand-bag of proper weight may be, if required, laid over the thigh, so as to gently restrain the action of the muscles. An opiate will tend to relieve from pain, prevent spasm, and cause sleep and rest.

There are some important points involved in the operation above described that may be considered in the following remarks:

I. Beginning the two primary incisions that are made on the sides of the limb, about one inch below the knee-joint, will leave the angles of the flaps near the distal surface of the femoral condyles, when the operation is completed. But when the incisions begin on the femoral condyles, the distal end of the femur will be unnecessarily exposed, and the flaps may be too short, so that the operator may have to cut off the condyles, thus making an amputation of the thigh—whereas it is his attention to operate at the knee-joint. This would certainly be a grave mistake, for every inch that the surgeon takes from the femur adds to the peril of his operation.

II. Beginning the two primary incisions as low down as the top of the head of the fibula, making the two flaps quite rectangular, and by making the anterior flap as thick as possible, will leave both flaps well supplied with blood-vessels, and the result will be that the flaps will maintain their vitality in the most perfect and desirable manner. In fact, in all the operations at the knee-joint I have performed by the above-described method the flaps have behaved very well.

III. In my cases the anterior flap always has been, and no doubt will be, drawn gently over and make an excellent covering to the femoral condyles, than which there could be no better result. This normal tissue-cover of the stump is admirably adapted to sustain any reasonable pressure that it may receive from an artificial limb.

IV. The posterior flap will in due time contract and draw its line of union with the anterior flap, so as to bring it just behind the femoral condyles. The internal limit of the union between the flaps will be drawn up more than the external limit. This result will be due, in the main, to the adductor muscles of the thigh.

V. In this place attention may be drawn to the fact that it is not always possible beforehand to estimate exactly how far flaps will finally contract. It is better to have flaps a little too long than to have them a little too short; so I advise operators to make them long enough. In my opinion it is a great mistake to make the posterior flap too short, for a painful scar just back of the femoral condyles will give both the patient and surgeon great anxiety and trouble. In fine, let me not condemn other operations at the knee-joint, but let me say a few words in commendation of the operation I have just described. The last operation done by me at the knee-joint was performed on the 27th day of October, 1882, for compound fracture of the leg, in a young man, and the result has been most satisfactory. Hence I recommend this method of amputating at the knee-joint; (1) because the operation is safely and readily performed; (2) because the flaps will not be likely to perish; (3) because there will be a good tegumentary covering for the condyles of the femur; (4) because the operation will be apt to conserve the life and comfort of the patient, and (5) because it will make a stump-end suitable for pressure.

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Treatment of Nocturnal Earache in Children.

BY A. D. WILLIAMS, M. D

What physician has not been puzzled to know what to do for the constantly recurring earaches of children at night? Some children cry night after night from pain in one or both ears. They can not sleep themselves, and will not let others sleep. During the day they are not bothered at all, but as soon as they retire at night the earache begins, and with it the poor mother's trouble begins. All pains are worse at night than in daytime. It is quite probable that the ears of such children are more or less painful during the day, but their attention being entirely occupied with their plays, they do not notice the pain. At night, their minds not being otherwise occupied, the slight exacerbation that naturally takes place then is sufficient to keep such children from sleeping.

Now, what is the best treatment for these night earaches in children? The most effectual treatment that I have ever used, or seen recommended, for this trouble, is the local use of a solution of sulphate of atropine. I brought this method of treatment to the notice of the profession some years ago, and have had no occasion since to change or even modify it, its effect being so very satisfactory. In fact, I have not yet met with a case of this kind which was not at once relieved by the local use of atropine. The solution is to be simply dropped into the painful ear, and allowed to remain there for ten or fifteen minutes. Then it is made to run out by turning the head over, the ear being wiped off with a dry rag. The solution may be put in cold, though it is better to have it slightly warm, as it does not shock the child so much. From three to five drops should be used at a time.

The strength of the solution must vary according to the age of the child. Under three years, one grain to ounce of water; over three years, two grains to ounce of water; and over ten years, four grains to ounce of water. In a grown person, almost any strength can be used. In a small infant, not more than half a grain to ounce of water should be used. All ages will bear a stronger solution in the ear than in the eye.

The application should be repeated as often as may be necessary. It is not often necessary to use it more than once the same night. Usually, a few applications permanently stop the pain.

The good effect of atropine in painful ears is because of its anodyne power. If physicians will try this plan of treatment in this class of cases, I am sure they will not be disappointed. In acute abscesses of the drum, and acute inflammation of the external meatus, the atropine will only slightly palliate the suffering, but in the recurrent nocturnal earaches of children it is practically a specific.—*Medical Brief.*

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Typhoid Fever—Phenic Acid.

Dr. Ramonet, Physician-in-Chief at the Military Hospital of Poghar (Algerie), concludes an article on this subject as follows:

1. Phenic acid does not act simply as an antipyretic in typhoid fever; it exerts a further influence on this affection at once antizymotic and curative.

2. The dose of phenic acid to be given in injections should never exceed four grammes per diem. Doses of twelve to fourteen grammes administered by Desplats, are enormous and harmless from the secondary effects.

3. Phenic medication is subject to secondary accidents, of which the most frequent and dangerous are pulmonary congestion and phenic cachexia. Convalescence is a period fraught with serious dangers to patients. They should be kept under the strictest surveillance.

4. Of all the known means of medication used in practice up to the present day, phenic acid treatment furnishes statistics of the most cures. We must here make a reserve in favor of cold baths, as those using them claim great advantages, and even a quasi-infallibility. We have not had

enough experience with the method of Brand to draw a comparison between it and phenic acid treatment.

5. Injections of phenic acid by their ease and simplicity in administration furnish the best treatment for typhoid fever in armies on campaign, when cold baths can not be administered.

6. Tonic treatment should always be associated with phenic acid treatment.

We can not close this paper without the following remarks. Typhoid fever is one of the most deadly maladies, both in the civil population and in the army. This being the case, the treatment of this redoubtable affection should engage the most earnest attention and study of the physician. After having sought out the best prophylactic measures to prevent the development of typhoid fever, he should endeavor to discover the best means to combat it when he has failed to prevent it. We have faith in the anti-typhoid action of injections of phenic acid; and if, as we have the firm conviction, our experience shall be repeated on the continent, phenic acid, after having been recognized by surgery, shall also be recognized by medicine.—*Chicago Med. Rev.*

Accidents in Typhoid Fever.

Dr. Wm. H. Draper, in a clinical lecture at the New York Hospital, said:

Certain complications may occur in the course of typhoid fever. The principal accidents which may imperil the patient are (1) congestion of the lungs; (2) perforation of the intestine; (3) perforation of a blood-vessel. All these require special attention.

1. Cough is almost always present, dependent upon a upon a moderate degree of bronchial catarrh. There is always more or less congestion at the base of the lungs, owing to the feeble circulation, the dorsal decubitis, the weakened muscular fibres, and shallow breathing. A good plan is to have the patient sit up for a while, or change his position, in order that by forced inspiration the lungs may become more inflated than otherwise. It is always necessary to increase the force of the heart's action. Oil-silk jackets may be used, or the patient can be wrapped in cotton. If the bronchitis is severe, dry cups should be applied.

2. The symptoms of intestinal perforation are acute pain,

accompanied by rigors; a sudden prostration, and a very remarkable degree of collapse. This accident makes the prognosis more serious. It is possible to produce a reaction sufficient to set up a peritonitis; nevertheless, as the patient is in a state of collapse and in immediate danger, stimulants and opium are indicated. Opium has a most beneficial effect on the heart, and should at once be given hypodermically, to insure a speedy effect. There is no use in applying leeches, blisters, etc.

3. Blood in the stools, indicating that a blood-vessel has been perforated by one of the ulcerating Peyer's glands, is a grave and serious symptom. Absolute repose should be obtained, and the diarrhœa, and even the patient's desire to defecate, be controlled if possible. Opium is, therefore, indicated. Styptics should be administered per anum. These do no good by the mouth, as the lesion is situated so far down the intestine.—*Med. Record.*

The Function of the Pancreas in Fever.

Dr. Stolnikow, of St. Petersburgh, gives, in a communication to Virchow's *Archiv*, the results of his observations on the changes in the activity of the pancreas in fever. He refers, in the first place, to the well-known disturbances of the digestive organs that accompany and characterize febrile states of the system; to the thirst, dryness of tongue, nausea, loss of appetite, and abdominal pain; to the changes in the salivary secretion observed by Mosler, such as the deficiency in its quantity, its acid reaction, the absence of sulphocyanide of potassium and of the diastatic ferment, so that it is incapable of converting starch into sugar; and again to the changes observed by Manassein in the gastric juice, which, like the saliva, is diminished in quantity, and so altered in properties that it can not exert its proper digestive power. But he says few or no attempts have been made to trace the changes occurring in the pancreas and its secretion, though there are good *a priori* grounds for believing that corresponding changes would occur. As the pancreas secretes a fluid containing powerful diastatic and fat disintegrating ferments, as well as a ferment acting on albumen, the inquiry has a special interest for Russian physicians, since many of the inhabitants of the more remote provinces are chiefly fed on starches and fats. In his experiments he first made a pancreatic fistula in accordance with the directions in Cyon's "Methodik," and after ascertaining the normal mode and kind of secretion, he injected purilage into the dog on which the investigation was made. The result was that the quantity of the pancreatic secretion was at first augmented to a considerable extent, the rise being from 2–3 ccm. per hour to 70–79 ccm. per hour. This effect was brief, and was followed by diminution, and when the quantity had diminished the increase usually observed after the ingestion of food failed to occur. The cause of the increase in quantity he considers to be excitation of the secretory nerves of the gland by the septic poison; its subsequent arrest he attributes to the paralysis of the nerves, the septic poison in fact acting in the same manner that atropia does on the nerves of the salivary glands. In regard to the quantity of the special ferments contained in the pancreatic juice, they also would appear to be at first augmented and then diminished, the diminution being occasioned by the depressing influence exerted by the septic poison both upon the trophic nerves and upon the cells themselves, in which pathological processes are established. The influence of the fever in producing a persistent depressing effect is greatly in excess in its duration over its exciting effect, and hence he considers that the employment of pilocarpine in fever has a logical foundation.—*Lancet*, January, 1883.

Pain at the Heart and Palpitation.

Dr. J. Burney Yeo publishes a very valuable lecture in the *Lancet*, on this subject. There are few symptoms that we are more frequently called upon to relieve than pain at the heart and palpitation, and in nine cases out of ten these symptoms are referable to dyspeptic conditions or to hysterical states. Pain anywhere in the left side of the chest, and often pain in the epigastric region, are commonly spoken of by the sufferer as "pain at the heart." While this pain may have nothing whatever to do with the heart, yet I have been somewhat surprised, while carrying out the method of exploration about to be described, to find in how many of these cases, where "pain at the heart" has been complained of, there has been quite unmistakable tenderness on pressure with the tip of the finger over the seat of the apex beat. The following different causes of thoracic pain may be incorrectly referred to the heart: Intercostal rheumatism, intercostal neuralgia, costal periostitis, of syphilitic origin, pleuritis, pain and discomfort attending flatulent distension of stomach. Under this last head I would mention one of the effects of abuse of tea, coffee and tobacco. Either of these, but especially tea, will frequently give rise to a form of dyspepsia, associated with vague pains in the chest, not always limited to the region of the stomach, but often referred to a spot higher up on the left side of the chest, and commonly accompanied with disturbed cardiac action and a nervous apprehension of the existence of heart disease. Finally, there is a pain usually spoken of as "sub-mammary," which you will often hear complained of by young women who are anæmic, or who suffer from menstrual derangement. It is frequently associated with tenderness on pressure over the ovaries, especially the left one. These several varieties of pain can be recognized by looking for the well known characteristic signs of each.

Dr. Peter considers the following method of examination of equal importance with that of auscultation or percussion. You must bear in mind that the cardiac muscle in the healthy state is insensible. (The method I am speaking of consists in simply pressing with the tip of the index finger, and with moderate force, along the intercostal spaces corresponding with the præ-cordial and præ-aortic regions, and generally on the several points in the thoracic and cervical regions which are in relation with the organs whose sensibility we wish to explore). Patients who suffer from chronic myocarditis often complain of a dull, heavy, almost constant, deep-seated pain in the region of the heart, aggravated at times under the influence of emotion or any considerable effort, and shooting then into the back. In such cases pressure with the tip of the finger along the intercostal spaces in the præ-cordial region, close to the sternum and over the ventricle, will constantly afford distinct evidence of the existence of a morbid sensibility of the cardiac muscle. The patient will often complain of severe pain when pressure is made over certain definite spots. In these cases the pain is especially felt in the fourth and fifth left interspaces when the surface of the ventricle is in contact with the wall of the chest, and also over the cardiac apex. And pressure over the apex will remain painful even after the pain has disappeared, under suitable treatment, from the other points.

Dr. Peter has noticed that in middle-aged men who suffer from the excessive abuse of tobacco, pressure over a very limited point on the third left intercostal space, near the sternum, will give rise to acute pain; and he thinks this point corresponds with the auriculo-ventricular groove, and that this strictly localized pain is probably due to a morbid condition of the ganglion of Remak, consequent on tobacco impregnation.

Pressure over the præ-aortic region is also of special importance in exploring the sensibility of the cardiac plexus and its tributary nerves; but it is necessary to be careful not to press too strongly over this region, as an attack of angina has been induced by neglecting this precaution.

Dr. Peter mentions that pain in this situation is very significant of lesion of the aorta affecting the whole thickness of its walls. In such cases Dr. Peter has found, and, I believe, been able in several cases to corroborate his statement to a certain extent, that there is tenderness on pressure over the pneumogastric, at the root of the neck, especially on the left side, and in other parts of its course.

Now, there is one clinical fact you may accept undoubtedly, and that is, that complaint of cardiac pain is much less common in mitral than in aortic disease.—*Med. and Surg. Rep.*, October 8.

Turf-Mould as an Antiseptic Dressing.

The London *Medical Record*, in a report on Antiseptic Surgery in Germany, has the following on the use of turf-mould: A laborer one day appeared in Neuber's clinic, who had sustained a complicated fracture of both bones of the forearm eight or ten days previously, whilst working on a moor, the soft parts being extensively lacerated and the wrist-joint opened. The man at once got a comrade to surround the fracture, as well as the whole forearm, with a thick paste of turf-mould, on which was then laid a sort of rough splint of wood. With this primitive dressing, he came to the clinic ten days afterwards, and, on being questioned, said he was very well otherwise. Numerous washings in a hand-bath at length freed the arm of all the turf, when it was found that the wound was healing beautifully, and had not a sign of suppuration, the surroundings being without any reaction. Some parts of the wound had united by first intention, others were granulating nicely. On the application of a Listerian dressing and fixation in a better position, the fracture and wound healed readily. The idea that in turf-mould another good antiseptic dressing might be found, then struck Neuber, and he accordingly proceeded to have analyses and investigations made, the results of which showed that the dust resulting from the manufacture of sods of turf by the circular saw, as carried on in Schleswig-Holstein, and which is very light in weight, as well as in color, possesses a powerful affinity for ammonia, and bad-smelling materials generally, and takes up nine times its own weight of water. In the infantry barracks at Brunswick such turf-mould is used as a deodorizer in the privies, and renders fæcal products absolutely innocuous. A series of experiments on its use in the dressing of wounds having been carefully carried out, the turf-mould is now used in the following manner, which has been very successful: Bags of gauze wrung out in 5 per cent. carbolic solution are prepared of two sizes, 12 and 24 square centimetres respectively. These are filled with turf-mould (or dust), the smaller bag with mould containing 2½ per cent. of iodoform, which is laid on the wound directly; it has been disinfected with either carbolic solution (2½ per cent.), zinc chloride (8 per cent.), or, at most, 3 grammes of iodoform. Over this is laid the larger bag, the mould in which is saturated with 5 per cent. carbolic solution. The whole is kept in place by a gauge bandage. As these exercise a very energetic pressure upon the wound and its surroundings, it has been found unnecessary to use the elastic compressive bandages hitherto in vogue, unless in the case of wounds near the openings of the body. In Esmarch's clinic, it has never been found necessary to remove this dressing for secondary hemorrhage, even though the bloodless method is often adopted; and it is the rule to apply a permanent compressive dressing before undoing the tubing above the wound, the only other precautions necessary being that the limb should be elevated, and all ligatures applied before closing the opening. In all, there were treated in this manner, from September to the end of November, 1881, fifty-five wounds on fifty-three patients, the list comprising seven resections and osteotomies, seven scrapings out of carious bones and joints, five amputations, twelve extirpations of tumors, six removals of sequestra, five abscesses, thirteen various wounds, amongst which were seven nerve-stretchings and two herniotomies. There was no fatal case, except one after nerve-stretching for tabes dorsalis, said to be due to pyæmia after disease of the prostate and abscess of the bladder; but such a case should hardly have been operated upon. No diseases of wounds were observed: Thirty-one cases were without fever; aseptic fever occurred eleven times; slight inflammatory disturbance only six times, elevation of temperature four times. In fifty cases the first dressing remained on until the end of the time intended, mostly a fortnight or more; and in only five was it necessary to remove it before that time had elapsed. Turf prepared according to Neuber's directions may be obtained from the Torfbereitung's Fabrik in Ultersen, Schleswig-Holstein; and the cost of a turf dressing amounts to 1.80 marks, whereas a carbolic acid Listerian dressing costs upwards of 15.08 marks, if we take an amputation of the thigh as a standard, for which, at least, six complete dressings are required at 2.44 marks; hence turf dressings are eight and one-third times as cheap as these.

Summed up, the advantages of turf dressings are these: 1. A given quantity of the mould takes up more fluid than jute, gauze or cotton wool. If it be lightly moistened, its absorbent power is still increased; wounds remain perfectly dry under it. 2. It possesses a great power of absorbing products of decomposition of organic substances, and hence prevents the same from occurring, and acts even in the unprepared form. Further experiments are being made in this direction. 3. The moistened mould is a very soft but still elastic substance, so that it is easily placed in the required position in the bags before applying them to the inequalities of the body. 4. It is the cheapest of known antiseptic dressings, one pennyworth sufficing for a dressing, and will be more so when it is found that the preparation with some antiseptic can be left out. 5. It makes a very suitable pad for all purposes when inclosed in gauze.—*Mich. Med. News.*

Two Cases of Carcinoma of the Stomach.

EXHIBITED BY J. H. MUSSER, M. D., OF PHILADELPHIA.

Case I.—Scirrhus of the pylorus; general proliferation of the connective tissue; interstitial nephritis. Malignant disease of the pylorus and of the lesser curvature of the stomach was diagnosticated when the patient applied at the Medical Dispensary of the University Hospital, May 14, 1882, for treatment, on account of the physical signs especially and of some points in the clinical history. Palpation and percussion revealed a firm, non-pulsatile, immovable, slightly painful tumor in the middle of the epigastric region, one inch to the left of the median line, about the size of a turkey egg. When lying down the abdomen was slightly scaphoid; but the left upper quarter was distended. A curved line extending downwards from the umbilicus to the flanks represented the lower limit of this swelling, which was soft and resistant, tympanitic on percussion, and with care could be discerned as starting from the hard tumor in the epigastrium. In short, it was due to a distended stomach. Although the tumor was not in the position of the pylorus, and although the patient had never vomited, yet pyloric disease was determined upon because of the gastric distention. On account of the absence of marked obstruction, the position and the occurrence of pain in the *lumbar* region, disease of the lesser curvature and the posterior wall was decided upon. The autopsy revealed that the malignant growth surrounded the stomach at the pyloric end, but was greater in extent in the lesser curvature. An adhesion to the left lobe of the liver explained the position of the tumor. The patient first noticed the localization of the disease in November, 1881, by the occurrence of pain in the epigastrium following a jar. She noticed that her health had failed three months before, and that menstruation had ceased six months previous to the epigastric pain. Note here the failure of health before any local evidences of disease, not even dyspeptic symptoms. She was a widow, aged forty years, with one child; her health had always been very good; her circumstances moderate, and her habits exemplary. In addition to a constant burning pain, increased by food, her appetite was poor, tongue pale, with enlarged pupillæ; flatulency was marked, and the bowels constipated. She presented a sallow, cachectic appearance, was somewhat emaciated, extremely anæmic, with cardiac, arterial and venous blood-murmurs, and accentuated second-sound. She was under observation until her death, October 17, 1882. The pain and constipation were relieved by treatment, but the course was only downwards. In addition, I may note the cachexia became more marked, and the classical appearance of the face was wonderfully depicted—transverse and vertical lines on the forehead, and semicircular lines around the mouth from the alæ of the nose to the chin, and vertical lines on the chin and lower lip. The hue of the countenance changed, growing darker and darker. This peculiar hue of the face Dr. Musser considered the most reliable symptom of approaching dissolution. It was noted one month before death. During the last two months of her illness she suffered much from soreness of the mouth and tongue without visible lesions; from burning in the fauces; difficulty of deglutition; acidity; vomiting taking place every third or fourth day, of a clear, acid fluid, coagulated milk, bile-stained, and "coffee-ground material." A painless, watery diarrhœa occurred frequently with tarry masses. Œdema of the feet and ankles took place six weeks before death. The tumor grew in size and changed position, falling downwards. Three days before death it was noted to pulsate, was tender, and was three inches long, extending from a median line to the left on a level with the umbilicus.

Autopsy twelve hours after death. Extreme emaciation; rigor mortis marked; œdema of feet. Heart slightly enlarged, the left ventricle walls eight and three-fourths lines in thickness; the heart weighed seven ounces. Aorta one inch, one and three-fourths lines in diameter, and slightly atheromatous. Deposits of fat along the septum were noted, and the muscular tissue itself was fatty. The stomach was in the position defined a few days before death, was greatly dilated, with the disease at the pyloric end extending along the lesser curvature four, along the greater curvature two inches, and completely encircling the organ. The stomach walls became thickened with much hypertrophied muscular coat as they approached the diseased area. The internal surface of the tumor was flat, elliptical, and defined by an everted lip of varying thickness about four lines high. The surface was uneven, some nodules being half an inch thick. The most central portion presented distinct evidences of ulceration.

The liver was rather larger than normal, seemed fatty, and was not indurated. The kidneys were small, hard, and the capsule peeled off with difficulty. Microscopic examination of the stomach, liver and kidneys, Dr. W. E. Hughes assisting, showed abundant irregularly-shaped epithelial cells packed closely in a fibrous stroma, but slightly developed in and containing numerous nuclei. Liver cells fatty and pigmented. Proliferation of the connective tissue around the hepatic and portal veins was noted, many nuclei proving its recent origin. The kidney was markedly cirrhotic, the connective tissue being *not* of recent formation. Note the general proliferation of connective tissue in the organs. No albumen was detected during life in the urine, nor were any renal symptoms noted; yet there was undoubted interstitial nephritis, belonging to the variety described by Gull, Sutton and Mahomed. The mal-assimilation consequent upon the gastric lesion was the predisposing factor in the production of this general change.

Microscopy.

Bacillus Tuberculosis.

BY J. H. COX, M. D., WEST LIBERTY, W. VA.

When we look at the past, and the present, the credulity of the medical profession appears somewhat strange. We constantly have new discoveries, which, if true, would work important changes in our practice; but they are frequently worthless, and after a short life, vanish as the dew in the morning sun. And we are constantly imposed upon by new remedies. It was only a few years since, that we were taught that carbolic acid would cure almost any disease; and if it failed in curing the disease, a judicious application of it after death would suspend chemical action, and the body would show no tendency to decay. We have had specifics for cancer, specifics for phthisis pulmonalis, and specifics for other diseases, which were apparently well established by experiment and observation; but upon trial in our every-day practice, we have been compelled to fall back on old principles and old remedies. Curing a cancer, where it had nearly destroyed a uterus, with chian turpentine; or phthisis with hypophosphites, where extensive tuberculosis existed, is something more gross and tangible; and are things in which we are not so liable to be mistaken as in minute microscropical examinations, where the rays of light that reach the eye are necessarily few.

The great discovery of Koch, of the "bacillus tuberculosis," appeared to show progress; but Dr. Schmidt, of New Orleans, would set us back where we stood years ago, and tell us what Koch discovered were no bacilli at all, but only fat-crystals. And there are other reasons, apart from Dr. Schmidt's experiments, to show that this is true.

According to Koch, it is in the earlier stages of tuberculosis that these "bacilli" appear most numerous; the very time at which the tissues are best supplied with fat. But when the disease has progressed, and the system almost succumbed to the influence of these organisms, they are frequently not found at all. They are absent when we would expect them in their greatest profusion. If consumption be caused by them, tubercle is their natural soil, and in its softened state, they would grow in their greatest luxuriance. If those objects be fat crystals, we would expect their disappearance as the disease progresses; if bacilli, we would expect their increase.

It is a settled point that many persons seeing, or thinking they saw, the same object, is not positive evidence of its existence. We were first told that those "bacilli" could only be seen after staining in a peculiar manner discovered by Koch. We are now told of various other modes of preparation; and that (although they were patiently searched after for years without being found) they may be seen without any particular preparation at all.

Baumgarten wishes to lay claim to this discovery, and proceeds to prepare the specimen in accordance with the supposed fact that the tubercle bacilli will remain absolutely colorless under a staining process, while the accompanying matter will take the coloring. Ehrlich takes the opposite position, and holds that the "bacilli" are not only readily stained, but that they hold it with such pertinacity, that they will not part with it in diluted nitric acid, while the other portions of the specimen will be bleached. Koch also claims to be able to stain the "bacilli" by a process simple enough; but why should he use an aqueous solution of *vesuvin?* Vesuvin is the idocrase of mineralogy, a worthless crystalline stone, difficult to procure away from where it occurs in nature; and an aqueous solution of it would be about equal to an aqueous solution of quartz or of broken glass.

Since the discovery of Koch, nearly every person who has a microscope has been looking for those "bacilli," and have generally failed in seeing them, probably because they took their material from well marked cases, where the fat had mostly disappeared. From such cases, with great care, we have prepared numerous slides, after Baumgarten and Ehrlich; but not having *vesuvin*, have not tried the process of Koch, and have been disappointed in seeing the "bacilli" in every instance. We have seen white lines, or "rods that sometimes branched," in specimens prepared after Baumgarten's process; but when viewed under a high power in a good light, the rods or lines became ragged and were resolved into white glass, which showed through minute flows or cracks in the dessicated sputa.

Micrococci.

BY J. M. ADAMS.

THE micrococci, the smallest of the *Schigomycetes* or splitting cells, are among the very smallest of microscopic forms, and are generally passed over by microscopists because so minute and troublesome to examine. Being so near mere points, a correct measurement is most perplexing, as they range from $\frac{1}{25000}$ to $\frac{1}{50000}$ of an inch in diameter, or only about the width of the flagella of the larger bacteria, which many have never yet seen; however, they are handled much more easily than minute monads, as they are motionless. Some are oval, but most are round; nearly all are dark colored, yet some are quite transparent, if not wholly so, and may be often overlooked. They may be mistaken for material broken up into infinitesimal fragments, except that they form chaplets or bead-like chains from their mode of growth by transverse division or forming zoogloca when at rest. They do not require decomposition of the substance for their growth, as with the bacteria, and do not have their primary object to help or hasten decomposition as with them, but may live in any material adapted for their growth, particularly vital or animal fluids. The blood-serum of living animals is a favorite place of resort; some cling about the red corpuscles, others fill and burst the white corpuscles, while others fill the serum so much as to disturb the circulation among the finer tissues and produce various effects peculiar with certain zymotic and contagious diseases. They precede the work of bacteria, or their work ceases when bacteria commence theirs, as they may work previous to and independent of decomposition. They form nitrogenous compounds in part, and finally produce poisonous effects. They generally will have their "run," as antiseptics can only check their growth in a limited measure at best, and like all parasitic growth, keep on till the material affords too little support for further growth, when the physical system assumes the mastery, particularly over the lesser malignant species, as in scarlatina, malaria, varioloid, etc.

Many species, however, are so destructive and absorbent of all the material substance, that they leave almost, if not incurable effects, as in glanders, syphilis, leprosy, etc. Their effects are so certain and invariable that, with their color, forms and symptoms produced, they can be safely classified into very many separate species—many more than Cohn and others have already classified.

Whatever may be their real object in nature is yet a mystery. They seem to live on or with the nitrogenous material principally, and die out when that has been peculiarly affected, and also die in pure water, in air, or by dispersion under unfavorable conditions. Whether they are for good or evil is a question, but no doubt they may have some good effect, not known; yet, being parasitic, their immediate or direct effect is always unfavorable. They most certainly puzzle the doctor, as well as the microscopist.—*The Microscope.*

Gleanings.

Previous Symptoms in Typhoid pointing to Perforation.—In a communication by Dr. Byers before the British Medical Association several cases are reported of death from perforation from typhoid ulceration of the small intestine. The following clinical features are believed to indicate the appearance of this serious accident:

1. The gravity of the case. Perforation is met with most frequently in the more serious cases of the disease. Liebermeister and Murchison both agree in this: the latter states that "in a large proportion of cases of perforation the previous symptoms are severe, and diarrhœa, as might be expected, is a prominent symptom. This was the case in sixty out of sixty-nine of my patients. In eleven of the sixty the symptoms of the peritonitis were preceded by considerable intestinal hemorrhage, and in many there was an unusual amount of abdominal pain."

2. As regards great tympanites, Sir W. Jenner says, "A single deep slough-formed ulcer will paralyze the action of the bowel and lead to such an accumulation of flatus as produces enormous distention of the abdomen." It is just in such a case that perforation would be likely to occur.

3. Continued elevation of temperature after the third

week, in the absence of any complication, usually points to severe intestinal lesion.

4. As to constipation, Sir William Jenner has pointed out that "a single deep ulcer will paralyze the action of the bowel, and so cause constipation."

5. Another symptom is severe tremor.

6. Protracted headache in the early stages is believed by Dr. Broadbent to denote an unusually severe affection of Peyer's patches.

7. Dr. Cayley has directed attention to the value of *tache cerebrale* in enteric fever. He says it often lasts for some time after convalescence has set in, and he regards its persistence as an indication that the intestinal ulcers have not yet healed, and that therefore the patient is still liable to relapses and to the complications attending unhealed ulcers.

Physiological Analogies and Differences of Strychnine and Curare.—Owing to the striking analogies which have been brought to light of late between the physiological actions of curare and strychnine (especially by Richet and Vulpian), Courty has thought worthy of investigation the question how far this resemblance reaches. It is at least of toxicological importance to know the limits of resemblance, and after going somewhat fully into the series of events which, after large doses of strychnine, precedes the final curare-like paralysis, Courty concludes that the *order* of the various phenomena which culminate in both cases in paralysis, alone furnishes a diagnostic set of facts.

Thus curare, however injected or however variable in composition, causes a loss of function in the motor nerve a little later than it causes the stoppage of ordinary movements and those of respiration. Still later comes paralysis of the vagus. With strychnine the order is reversed. First comes pneumogastric inexcitability; then cessation of the ordinary movements or spasms; and, finally, the motor nerve refuses to react.

A good practical test of poisoning in animals in a suspected case, therefore, would be this: Stimulate successively the vagus and the sciatic nerves. If the vagus fails first, we are dealing with strychnine; if the sciatic, we have curare. —*Comptes Rendus.*

Hemorrhage from the Throat after Scarlatina, requiring Ligature of the Common Carotid Artery.—Before the Clinical Society of London, recently, Mr. A. J.

Pepper read the notes of a very interesting case, of a man, 30 years of age, who passed through an attack of scarlet fever and several weeks afterwards had a chill and complained of sore throat. Two days later the uvula was large and translucent, and the soft palate red and swollen. The next day he complained of great difficulty in swallowing, and throbbing of the left side of the throat. Four hemorrhagic patches had appeared at the junction of the hard and soft palates, with a large and gelatinous bleb on the left side. Three hours later, the throat, especially on the left side, became rapidly swollen, accompanied by a feeling of suffocation; soon after he brought up a considerable quantity of blood. The swelling and difficulty of breathing then subsided, and, at the same time, complete aphonia appeared. The alternate enlargement of the neck, hemorrhage, and subsidence of the swelling were repeated several times, until the patient was in a really critical condition: he had lost about forty ounces of blood, and there was no sign of an arrest of the hemorrhage. Considerable bulging of the left side of the pharynx was noticed, and marked dyspnœa and aphonia. At a consultation between Dr. Mahomed, who had the man under his charge, and Mr. Pepper, it was thought dangerous to cut into the post-pharyngeal abscess, and it was decided to tie the left common carotid artery at the upper border of the omo-hyoid muscle: this was completely successful, and the case recovered.

Ripe and Healthy Old Age.—*Gaillards' Medical Journal:* A. Bronson Alcott has written all his poems since his eightieth birthday. Von Ranke, now eighty-six years of age, is writing his "History of the World." Whittier, over seventy, writes most of the morning, walks most of the afternoon, and often goes to a party in the evening. Longfellow, over seventy-five, read diligently, and collected material for future works! Oliver Wendell Holmes, over sixty, is bright, cheery, physically active, and mentally as strong and sprightly as ever. Walt Whitman, over sixty-four, the carpenter, printer and poet, the author of "The Leaves of Grass," "Drum Taps," and "The Two Rivulets," is hard at work. Humboldt commenced the study of Hebrew at eighty. Victor Hugo, over eighty, is actively at work. Velpeau, clinician, teacher, practitioner, pathologist, working ten hours daily, made the time wherein to write and publish over eighty works, and died in harness. Von Graefe, whose clinic always lasted most of the day and his practice far into the night, recorded his work every day. Sir James Y. Simpson, from whose doors the carriages of the nobility were turned away frequently, after vainly waiting to bring their occupants to the doctor's door, wrote voluminously, held a daily Hospital Clinic, and lectured for an hour, three times weekly, etc., etc., and died in the midst of such labors, and yet many physicians, but little over fifty, say that they are too old to write, and are getting too old even to read. And many young men are too busy to write!!

SUCCESSFUL EXTIRPATION OF THE LARYNX.—A blacksmith, 42 years of age, suffering with epithelioma of the larynx, was operated upon by Mr. Walter Whitehead, and the entire larynx, including the thyroid and cricoid cartilages, and the two upper rings of the trachea were removed. The epiglottis remained intact. Tracheotomy had been performed as a preliminary measure nearly a month before. After the removal of the larynx, the voice was not immediately lost, but for several weeks he could speak in a monotone and could be heard at a distance of six feet; but gradually the sound faded, and eventually disappeared altogether. The patient made a good recovery.—*Lancet.*

INTESTINAL OBSTRUCTION RELIEVED BY MASSAGE.—Dr. Bitterlin reports a case of intestinal occlusion accompanied with much pain, vomiting of fecaloid matter, hiccough continuing in spite of treatment for eight days, finally relieved by kneading and malaxation of the belly. The manipulation was very painful. Some instants after, violent colic came on and gurglings, the bowels shortly afterwards moved and the patient recovered. Dr. Bitterlin mentions a second case in which he was called in consultation, where the same treatment was followed by the same happy results.—*L'Union Medical.*

TO TEST FOR IODINE IN THE URINE.—After dressing wounds freely with iodoform, iodine frequently appears in the urine. The *Bulletin Generale de Therapeutique* gives the following simple test: A little chloroform is added to the suspected urine in a test tube. One or two drops of nitric acid are added and the mixture shaken. Iodine will be set free, and dissolve in the chloroform, and be found in the bottom of the test tube, presenting a beautiful violet color.—*N. Carolina Med. Jour.*

Book Notices.

A Manual of Histology.—Edited and prepared by Thomas E. Satterthwaite, M. D., New York, Professor of Histological and Pathological Anatomy in the New York Post-Graduate Medical College, etc. In Association with Drs. Thomas Dwight, J. Collins Warren, Wm. F. Whitney, Edmund C. Wendt, Bryson Delavan, R. W. Amidon, W. R. Birdsall, etc. Second Edition, Enlarged and Revised, containing 202 Illustrations, with an Appendix. 8vo. Pp. 490. New York: Wm. Wood & Co. Cincinnati: R. Clarke & Co. Price $4.50.

This is really a superb work, and will be sought for by those who are engaged in histological work. And who does not now engage to some extent in histological study, since the microscope has gotten to be such a common instrument with physicians. Where there was but one who gave any attention to histology, no further back than ten years ago, there are a dozen now. Twenty years ago or less, not more, probably, than one physician in a hundred knew anything about a cell other than what they had heard about it—never having seen one of any description. There are very few now, however, who are not acquainted with the appearances, from their own observation, of blood corpuscles, pus cells, mucous cells, milk cells, fat cells, etc.

The work before us is made up of the researches of quite a number of gentlemen besides Prof. Satterthwaite, who is the editor of the work. The first two chapters are devoted to describing the microscope and its accessories, microscopic manipulations, and preparing and staining microscopic objects. With the third chapter commences the consideration of histology proper, beginning with the blood. This is fully and very carefully treated by Prof. Satterthwaite. Not only the results of his own investigations are recorded, but those of other recent histologists. In the fourth chapter the epithelium is described; and in succeeding chapters we have treated all the various structures of the body.

Such a work as this should be studied in conjunction with physiology, whether the student is able to follow along with the microscope or not. It is not necessary, nor do we suppose it is the design, in the study of such a work on histology, that the student should be able to verify everything described by his own investigations. An excellent idea of structure can be obtained by studying correct descriptions without seeing everything. As it belongs to physiology to describe the functions or offices of the various portions of the body, it would add much to the understanding of these functions to have a thorough knowledge of the structure of the parts.

The work is entirely an American one, and is a credit to the profession of the country. We regard it as far superior to any of the many German works which have been translated, and are used as text books in this country. The descriptions are better and more satisfactory, and bring the knowledge of histology nearer abreast that of the present time.

The illustrations are numerous, many of them being original. We predict a large demand for the work.

ELECTRICITY IN MEDICINE AND SURGERY.—By Geo. C. Pitzer, M. D., Professor of the Theory and Practice of Medicine in the American Medical College, St. Louis, etc. First Edition. 8vo. Pp. 83. St. Louis: From the Author. Price $1.00.

The author states that the object of the work is to furnish the medical student with a book containing the principal practical facts embraced by the subject of electricity and electro-therapeutics, and consequently he has aimed to make everything as plain and simple as possible.

An examination of the work shows that it is quite similar to the many other works of its class that are devoted to electricity as a therapeutic agent. At the beginning the various kinds of batteries are described, and then the author proceeds to describe how best to make application of the electrical current in the treatment of the various diseases to which it is applicable. The descriptions are plain and easy to be understood. There will be found in the work much practical information of a valuable character. Its small size and cheapness will commend it to many.

EARLY AID IN INJURIES AND ACCIDENTS.—By Dr. Friedrich Esmarch, Professor of Surgery in the University of Kiel, etc. Translated from the German by H. R. H. Princess Christian. 12mo. Pp. 117. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: R. Clarke & Co. Price 75 cents.

It will be seen by the title page which we have copied that the little book has been translated into English by a no less personage than a princess. While it is none the better on that account, and might be the worse for it, although we think not, it shows, so far as that member of the royal family is concerned, a disposition to be useful.

Prof. Esmarch delivered these lectures in his "Samaritan School," last winter, for the purpose of instructing non-medical persons how to afford intelligent assistance without delay in many cases of injuries and accidents. In accidents, oftentimes, the services of a physician can not be secured for many hours, and the consequence is permanent injury of the sufferer. Says Prof. Esmarch in his introductory lecture to his class: "What I wish to do is to enable you to give the *right kind of aid* before the doctor arrives—without which, irreparable injury might be done, and perhaps even a valuable life lost."

The work contains five lectures, in which are described, with the proper methods of rendering assistance, contusions, wounds, hemorrhages, poisoned wounds, fractures, dislocations, sprains, burns, frostbite, drowning, suffocation, loss of consciousness, etc.

This little book, translated by a fair princess, is undoubtedly one of great merit, and members of the profession should encourage the laity to procure it and study it. Much suffering might thus be saved and many valuable lives preserved.

Editorial.

THE SIXTEENTH VOLUME.—With the present number of the MEDICAL NEWS, the journal begins its *sixteenth volume* and enters upon its sixteenth year of publication. When we had bound the volume of last year, 1882, immediately after the December number made its appearance, we had the pleasure of seeing upon our shelves fifteen goodly sized volumes (those of the last six or seven years containing not less than 864 pages each), representing fifteen years of continuous publication, not a month, at any time, having been missed. Of course, there are other medical journals older than it, but, at its present age, it can properly be regarded as a veteran in the field—a journal no longer experimenting as regards success, but ranking among those that are completely established.

We well remember when, in January, 1868, the first number of our journal was issued, and twenty-five hundred copies of it were sent out to claim the favor of the profession. It was with doubts and fears that we engaged in the enterprise of starting a new journal, and entering upon competition with the numerous able journals that were then being published. We were fearful that our publication "would not earn a right to live," and would be numbered with the many, very many that had been brought into existence, flourished for awhile, and then had retired into the everlasting shades, and were never heard of more; and that this might happen with it before it should live long enough for it to be generally known that it had had an existence—that it would be defunct before it was known that it was born. These apprehensions were prompted by the fact that, at about the beginning of our enterprise, a number of medical journals had *suspended*, which had been candidates for the favor of the profession for only a few years, which had started forth under what seemed to be very favorable auspices. Just before, a new journal which had had floating from the editorial banner, at its masthead, the names of a number of very eminent gentlemen of the Queen City, had been carried from Cincinnati to Indianapolis, where, after gasping for awhile, it had expired.

We determined, however, whatever might finally be the result, we would carry on the enterprise for at least a year, and that, during the time, we would strive to make the journal worthy of patronage. Every effort, consequently, was brought to bear to serve our readers with the best medical literature that our facilities permitted, and to keep them posted in the progress that was being made in the various departments of medicine. In the way of accomplishing our purposes; we sought articles from the most eminent of our friends in the profession, and we soon succeeded in obtaining as frequent contributors Drs. Geo. C. Blackman, Robert Bartholow, Thos. Carroll, T. A. Reamy, of Philadelphia, nearly every one of the then members of the Medical College of Ohio; W. Taliaferro, C. H. Spillman, of Harrodsburg, Ky.; J. Tate, R. R. McIlvaine, W. H. Woodward, of Washington, and numerous others. Every one of the gentlemen whose names we have mentioned, besides not a few others, contributed to our pages during the first year of publication, and a majority of them continued to be regular contributors for a number of years. Prof. Blackman favored us with numerous articles up to the time of his death, and Prof. Bartholow wrote for us until his removal from Cincinnati to

Philadelphia—contributing a series of lectures a number of times during the first three or four years. We could mention the names of a great many others who, during the first two or three years, while we were in doubts and fears whether we would succeed or not in establishing a medical journal, aided us by contributing articles. As we received in exchange all the medical journals published in this country, besides many European ones, we made it a point that whatever was reprinted from other journals should be selected with reference to interesting and affording instruction. From the vast amount of reading matter sent us monthly, it was as easy to supply our readers with that which was good as with inferior.

Although at the end of the first year we found that our income had not equaled our outlay, yet, at the same time, the success had been such as to convince both ourself and those who were at that time associated with us, that if we would keep boldly on, it would be but a matter of little time to firmly establish our journal. There was, at that time, but one other medical journal published in Cincinnati, the *Lancet and Observer*. But a few years afterwards, a number of gentlemen connected with the *Medical College of Ohio*, commenced the publication of the *Clinic*, which, after having been kept up for a year or so—may be three—by means of a great flourish of trumps, *decessit e vita*. Feeling assured of success from our first year's experience, we resolved to continue on, and consequently began our second volume, announcing to our subscribers that our encouragement had been such as to make us feel sure that the journal would be an established fact.

When we first started with our journal, it was composed of but two "forms" of sixteen pages each, and consequently contained but thirty-two pages. So soon as our income would permit, we enlarged it, increasing the number of pages to forty-eight. After three or four years of that size, the number of pages was increased to sixty-four, and, in a year or two, additional pages were added, so that for the last five or six years the MEDICAL NEWS has been containing at least seventy-two pages each month—sometimes having eighty.

Our subscribers will notice by the appearance of the present number that our improvements are still continuing. They will see at once, by the handsome appearance of the pages, that we have discarded our old type, which had begun to be somewhat worn, and are now using entirely new type. They will see also that there is an improvement of the paper, and other improvements.

But we intend that there shall be improvements of more importance than merely improvement in type, paper, and presswork, although such improvements are by no means unimportant, exhibiting as they do general good condition and prosperity. We propose to make the MEDICAL NEWS a better medical journal than it has ever been. As it has been, we have never lacked receiving letters of congratulation and commendation, speaking of the NEWS as the very best medical journal published, but we know that we can still further improve it, notwithstanding our time is so greatly occupied with many important duties. Besides furnishing our readers with a larger amount of original communications, we design to give a better epitome of medical progress, and discuss more ourself the subjects of interest to the profession. Dr. Illowy, of this city, a well known educated gentleman, has kindly agreed to furnish translations of whatever may be important in French or German journals. While it is intended that the Microscopical department shall not receive undue attention, yet as microscopy is every day assuming more and more importance in consequence of the vastly increased number of microscopes in the hands of physicians, yet the discoveries made by it will be noted, which, of course, is as interesting to those who are not microscopists as to those who are, and the improvements made in the microscope and its accessories will also receive attention.

In conclusion, we will remark that we feel very grateful to our very many old subscribers who have kept with us for many years. We have a great many subscribers who have taken the journal from the beginning—for fifteen years—and a still greater number, who, although they have not taken it quite so long, yet have been on our subscription book a sufficient number of years to be regarded old subscribers. We tender to them all our sincere thanks for their patronage and words of encouragement oftentimes sent us. We hope they will continue with us, but, not only so, that they will all continue to assist us by aiding us to increase the number of our subscribers. If each one of our subscribers would use a little exertion and send us but one new subscriber, our subscription list would be doubled. While this would be of the greatest benefit to the journal, yet, in consequence of the division of labor, it would be a matter of but little exertion to the subscribers themselves. We have not been in the habit of offering premiums, but we would very willingly send a free copy to any who would send us three *new* subscribers. They should all be *new* ones, not any old ones.

CRITICISING A CRITIC.—In the December issue of the *Chicago Medical Journal and Examiner*, Dr. H. D. Schmidt, Pathologist to the Charity Hospital of New Orleans, publishes a lengthy article on the discovery of the "bacillus tuberculosis," by Koch, of Germany, in which he expresses the belief that there is no such animal organism, and that which Koch mistakes for one is but a fat crystal. The article seems to have stirred up the wrath of quite a young physician of this city to a fearful degree, and the consequence has been, that he has rushed to our friend Culbertson, of the *Lancet and Clinic*, and had him insert in that journal a most indignant rejoinder to Dr. Schmidt's calm scientific review of Koch's alleged discovery. The young doctor is no other than Dr. James T. Whittaker, who has more than once called attention to himself by what he has put in print. There is no doubt that he has talent, but he certainly needs a friend to direct it for him.

If Dr. Schmidt is in error in regarding the bacilli tuberculoses of Koch but fat crystals, it will certainly require higher authority than Dr. James T. Whittaker to demonstrate it. There is no one in this country who has more the confidence of scientific men, as a correct observer, than Dr. Schmidt. He held a position in the first ranks of microscopists, chemists and pathologists at the time his young critic was playing truant in his schooldays, and was learning, by experience with his playmates, that pretension had more influence with many than qualities themselves. We remember very well the high esteem in which Dr. S. was held by all the members of the American Association for the Advancement of Science, when it was held in this city, a year ago last summer. There was no one treated with more respect than he, as he passed around among the members, or took part in the discussions. When he spoke, his utterances were regarded as authority. At the time, if any one considered as holding a respectable position as a scientist had expressed himself in regard to Dr. Schmidt in the following manner, general indignation would have been excited, as the expression would have been looked upon as a slander uttered to injure him: "For it will become apparent at a glance alike to the enemy and the friend of the cause, that Dr. Schmidt has simply created an image from an uncultivated imagination, and has proceeded to demolish it, if not to his own instruction, to the entertainment of the reader." But so soon as the fact would have become known that the author was the youthful M. D. who has recently written it, general mirth would have taken the place of the prevalent indignation.

Koch may have discovered a *bacillus tuberculosis*. We do not propose to discuss that subject at the present time. Several weeks ago, before we had heard of Dr. Schmidt's investigation, when lecturing upon tuberculosis before our class, we alluded to the alleged discovery, and stated that, although we were not yet prepared to deny the existence of such an organism, yet that we felt credulous in regard to Koch's having found one. That the use of "homogeneous" microscopic objectives, oil immersion, of excessive angle of aperture—180°—were coming greatly into vogue with microscopists, and that we regarded such lenses as altogether unsuited for histological purposes, for that with the most experienced they were apt to lead to error—that they were only adapted to investigate diatoms for the purpose of resolving surface markings. That even in the study of diatoms, expert microscopists, using great angle objectives, have been known to mistake false lines for real ones. That the bacillus was so minute, and so difficult to see, even when brought into view, that it was acknowledged that it required an expert to see it—that, under such circumstances, it would not be difficult to imagine, that with the complex treatment to which the tubercular tissue had been subject by various reagents and coloring materials, with *homogeneous* lenses made use of, which are without collar adjustment to correct for difference in thickness of glass cover, a fallacy of observation would result, which might be repeated any number of times. Or that, if Koch has not been deceived by the use of unadjustable objectives of excessive angle of aperture, he might have mistaken some forms of fatty crystals, having the appearances of lines, for bacilli.

We have never heard what description of objectives Koch employed; but if we knew that his investigations were carried on by Prof. Abbe's new formula for homogeneous lenses, we would be inclined to withhold our belief of the correctness of results, until further time should develop the accuracy of these glasses for histological research.

If Dr. Schmidt, like ourself, had some doubts as to the discovery of a genuine bacillus in tubercular material by

Koch, and concluded to investigate the subject, and announces that the result of his research convinces him that Koch's bacillus is no bacillus at all, but only a fat crystal; that it has dissolved, not into air, but into grease, must he be denounced? Must unqualified credence be given to every publication of a discovery of something new without challenge? If one should conclude that, before assenting, he will investigate a little, must he, as a consequence, be placed in the category of those who are opposed to progress, ranked as a persecutor of the great discoverers of truth, and likened to those who defamed Harvey for demonstrating the circulation of the blood? We will quote the youthful professor in his cudgeling Dr. Schmidt for daring to have doubts about the Koch discovery: "We are much reminded in this connection of the precipitate assault upon Harvey's simple announcement of the circulation of the blood, after the work of twenty years, by Riolan, who hurried out his denunciation under a high sounding title in as many days. Although Riolan is forgotten now, he had many believers in his day, for there were not wanting then, as now, opponents to every innovation." And thus, forsooth, Dr. Schmidt is compared to the denunciators of the immortal Harvey, simply because he did not, at once, accept the reality of Koch's bacillus, but proceeded to investigate, and after having done so, has announced that the rod-like bodies, which presented themselves to his sight, proved to be fat crystals and not bacilli; and that there were strong reasons to believe that Koch had mistaken crystals of fat for bacilli. His review of Koch's claims and report of his mode of investigation is presented in the *Journal and Examiner* in a dignified, dispassionate article, such as would be expected to emanate from a learned, scientific gentleman, whose mind was entirely engrossed in treating and determining a scientific question of great importance, and was not at all taken up with himself, as if he was contemplating a sensation by a display of learning that would seem wonderful to the many whose knowledge of microscopy is very limited, or none at all, but not at all so to those who have some acquaintance with it.

That our readers may see for themselves the character of Dr. Schmidt's article in the *Journal and Examiner*, and judge whether he has merited the attack which the young Cincinnati doctor has made upon him, likening him to those detestable individuals of the past who fought against progress, throwing every possible impediment in the way of those who were striving to unfold and disseminate the truths of science by persecuting them personally and exciting prejudices against them, we will quote at some length from his article, where he describes how he came to differ from Koch as to the existence of a true *bacillus tuberculosis:*

"In order, therefore, to inquire into the existence and nature of this new bacillus, I went at once to work, and prepared from the abundant pathological material constantly at my disposal, a number of specimens of sputa and thin sections of tuberculous lungs, which sections I stained with the methyl-violet and vesuvin liquids, prepared with the greatest precision after Koch's directions, and then mounted them in Canada balsam. In examining both sputa and sections under the microscope, I failed, however, to detect anything in the shape of a bacillus, stained blue *to the degree which I expected.* Thinking that, perhaps, the brown color of the vesuvin might have hidden the bacilli, I now concluded to lay aside this color, and accordingly stained another set of sections and specimens of sputa with methyl-violet alone, the surplus of which I removed by absolute alcohol and oil of cloves. Some of these preparations were then mounted in balsam, and the rest in glycerine. The microscopical examination, however, was attended by the same results as before, with the exception of one specimen of sputa, in which I observed a few minute, highly refractive rods of a greenish blue tint, resembling in shape small bacilli.

"Although I had thus far failed to demonstrate satisfactorily the bacillus tuberculosis, I still had faith in its existence, because I had learned from some medical journal that the minute, blue-stained rods had really been seen in London in some preparations which Koch himself had sent to that city; while, on the other hand, the want of success in staining the organism, experienced by some English microscopists at the Brownian Institute of the same city, consoled me for my own failure. But being still very anxious to behold this new parasite, especially in its original haunts, miliary tubercle, I resolved to have recourse to the old, long-tried bacteria detective, a solution of caustic potassa. With this solution, thirty per cent. in strength, I then succeeded in rendering visible, in thin sections of the tuberculous tissue, as well as in specimens of sputa, a number of minute rods, corresponding in form and size to those which Koch described as the bacilli tuberculosis. They were, as this investigator had stated, generally met in small groups along the margins of the tubercles, exhibiting a greenish-blue tint, and being highly refractive. Notwithstanding that this high degree of refraction, exhibited by the bacilli, appeared to me extraordinary, I could not deny that, in other respects, the rods which I observed presented somewhat the form of these new organisms; and this view became strengthened when I observed a minute granule on one end of the rods, which I imagined to represent the sporangium, also reported to have been discovered by Koch. And having thus arrived at the point of admitting to myself that these bodies might represent true bacilli, I was ready to set aside my former views on this subject, and to pass over into the camp of the germ-theorists. This change of opinion, however, lasted but a short time; for a certain observation which I then made in the same direction, determined me to remain for awhile in the old quarters. I observed that these rods were almost always found in company with fat globules, and frequently, also, with granules of black pigment. This observation, of course, changed the face of the question; for it reminded me of the fatty crystals which I had observed, not only in the degenerating fat-cells of the subcutaneous layer of the skin in cases of leprosy, but also in the cells of other pathological tissues, as well as in vomited matter, and in feces. In fact, every working pathologist knows that the crystals of fatty acids, either free or inclosed in cells. are not infrequently encountered in the examination of pathological specimens."

We have here described by Dr. Schmidt an outline of the method he instituted to verify, if possible, the discovery by Koch of a bacillus; for he says that he "was determined to regard the existence of this bacillus as a fact, unless convinced of the contrary by personal observations." He, therefore, did not set to work for the purpose of creating doubt as to the claims of the German pathologist of making a most important discovery, and to hinder him from receiving the meed of praise due him, for he believed his claims to be genuine, and it was foreign to his purpose to search only for evidence to disprove them. Dr. Schmidt is a man of too much sense to believe that he or any other man can draggle in the dust a great scientific fact that has been discovered and prevent its acceptance. He felt, however, that he had a right to investigate the claim of the discovery of a bacillus, and to yield assent or not in accordance with the result of his investigations; and there is no one possessing the ordinary amount of brains who would not be disposed to accord to him this right. Even though it would be finally established that he was in error in dissenting from the claim, none but an illiberal minded person would think that he had merited abuse and would class him with the persecutors of Harvey, etc. His whole article, being of the character of the lengthy extract we have made from it, it will be seen that its feature is a dispassionate, scientific analysis of the claim of a fellow investigator of an important discovery in which he feels under the necessity of dissenting. At the same time, he exhibits a knowledge of physiological and pathological facts, and an expertness of manipulation of the microscope, that his young critic can not hope to possess for many years, for the learning of Dr. Schmidt, like the faith in the Bible that comes from prayer and fasting, comes from time and study. No young gent can attain to it immediately after graduating, although almost any youth may make a flourish of a lot of detached facts, picked up by the aid of a little smattering knowledge, and excite the wonderment of those who do not know anything. We know that Prof. Whittaker, a few years ago, claimed to have discovered animalculi in the blood of a case of hydrophobia, etc.; yet we feel assured, with all due respect to him, that he has neither the knowledge nor the manipulative skill to make the investigations which Dr. Schmidt describes in his article as made by him. Such work requires actual knowledge, and the skill and experience of a specialist. When, therefore, one who writes prize essays, on short notice, on any subject in any department of medicine, and whose microscopical manipulations have consisted in the mere looking down a microscopical tube at a prepared object, ventures upon criticising the researches of a special worker with the microscopes, we can not restrain our risibilities.

After comparing Dr. Schmidt to Riolan, and saying that he has an uncultivated imagination, with other highly uncomplimentary remarks, Dr. W. proceeds to assert of his article—"As might have been expected, an insufferable vein of conceit pervades the article." If Dr. Schmidt's article is conceited, we are sure our readers, to whom we have afforded a fair sample of its character by our quotation, will agree with us in considering Dr. Whittaker's article the quintessence of conceit—not a concentrated extract from long maceration and boiling down, but an alkaloid of the most active principle. Conceit!!! We are overcome—struck dumb. We must confess that in all our life we have never met with such an example of conceited conceit as is contained in the expression quoted.

In referring to the plates "drawn from nature" by Dr. Schmidt, which he has copied and placed in front of his own article, and which, no doubt, he is willing that his readers may get the impression illustrate his investigations with the microscope, Dr. Whittaker says that no one, not even a first-course student of medicine, could possibly confound such distinct crystals, for the most part of margaric acid, for the schizomycetes (a big word, by the way, for the mouth of a little man) of any disease or of any origin. Now we feel quite sure that Dr. W., for some days after having attended his second course of lectures, would have been apt to have confounded these "distinct crystals for the *schizomycetes* of any disease or of any origin." We will even go further in our statement, and assert that two days before writing his review of Dr. Schmidt's article, he "could possibly have confounded these distinct crystals," etc.; and yet Dr. Schmidt presented the cut for the very purpose of showing that the figures exhibited were crystals of fat.

Our young friend harps very much on the expression which Dr. Schmidt makes, when, on examining both sputa and sections under the microscope, he failed to detect anything in the shape of a bacillus, stained blue, he says: "*To the degree which I* (Dr. S.) *expected.*" In regard to this expression, he remarks that the phrase thus emphasized (Dr. S. has it in italics), "to him who knows how to read between lines, does not fit." He charges that the words bear evidence of a later insertion. Now we have an idea that this is a very innocent expression, although italicized, and merely means that Dr. S. did not find any bacilli, or anything else, stained blue to the degree which he expected from Koch's description of the blue color which the bacillus tuberculosis took on from the blue staining. Dr. S. commenced his work believing in the existence of a bacillus, but when he had prepared his specimen, although he saw a number of highly refractive rods, he could discover no bacilli stained blue to the degree which he expected; or, in other words, he saw nothing answering to the description of the bacillus of Koch. If English had been Dr. Schmidt's vernacular language, he might have expressed himself in other words. The criticism is an exceedingly weak one, and the innuendo of mystery is of the same character.

Our learned young man, in his criticism, proceeds to say that Dr. Schmidt, having tried the methods of Koch, Ehrlich, and Gibbs, and failing to discover bacilli, adopted a mode of his own; "but, strange to say, the microscopical examination was attended with the same results as before." Why not, if there were no bacilli to be discovered? If he had found the organisms by a proceeding of his own, even if he had failed to do so by one described by Koch, he would have been confirmed in their existence and would not have written his paper.

But as absurd a criticism as we ever met with, is the next one which follows. If Dr. Schmidt should ever meet with the young man's review of his article, this one will surely convince him that his reviewer is a very young man who is endeavoring to convince the readers of the *Lancet and Clinic* that he is an expert microscopist. He writes: "All the bodies which he did see, were, he says, 'characterized by very sharp and dark contours, and by refracting the light very highly;' 'and,' he continues, 'they could be drawn in or out of focus by removing the objective.' Now this is the very primer of our knowledge concerning these fat bodies. And yet the author speaks of a 'suspicion' having entered his mind 'that these bodies might, after all, only represent fat crystals.' *Saveta simplicitas!** If all these facts only convey a suspicion, how many would it require to establish a conviction? But our author was convinced after a while that the 'lancet-shaped leaflets' and 'sword-shaped bodies' were really fat bodies, probably crystals of margaric acid, while the 'leaflets with dark heavy contours forming ramifications like the branches of a tree; these, very likely, represent stearic or some other fatty acid.'"

Dr. Schmidt states that on examining a section of tuberculous lung, while making his examinations, he beheld groups of minute rods, which rods were evidently the bacilli tuberculoses, if there were any such. At the same time, he noticed a number of cells of an opaque and somewhat blackish appearance, and observed that by the action of potassa their protoplasm cleared up more and more, and, finally, that they were filled with larger and smaller fat-globules, between which the minute rods gradually made their appearance. In one of the sections, the cells, which were almost all filled with fat-globules, and many of them with pigment granules besides, chanced to contain numerous rods, which, however, considerably differed among themselves, both in length and form. "All these minute bodies, however," he says (and right here the learned youth finds a 'mare's nest' on which he bases his remarkable criticism to which we have drawn attention, and which exhibits his wonderful familiarity with microscopical appearances), "were characterized by very sharp and dark contours, and by refracting the light very highly. Like fat-globules, they concentrated the light passing through them when brought out of focus by removing the objective further off, while they were rendered dark by a closer approach of the latter."

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*We wonder at what school Dr. W. studied Latin?

It is really laughable how the young critic assents to the conclusions of Dr. Schmidt, pronouncing them the primer of our knowledge, and then charges him with being an ignoramus for making them; and yet we doubt if he knew, until he read Dr. Schmidt's article, what were the characteristic appearances, under the microscope, of a fat-cell or a fat-crystal. We do not remember of ever before meeting with a critic, however absurd his attempts at criticising were, to assent to the correctness of the processes of reasoning of the one he was reviewing, and acknowledge the validity of his deductions, and then insist upon it that it is proof that he has failed to prove his point, because he has made his conclusions so plain that they can not be gainsayed—are really the very primer of our knowledge.

But the critic receives the hardest blow, and seems to have been rendered nearly unconscious by it, when Dr. Schmidt states that all the rod-like bodies that were brought to his view were dissolved by ether. He puts this statement of Dr. S. in italics, with an exclamation point at the end. Of course, if they were but fat crystals, they would necessarily be soluble in ether, and Dr. S. mentions the fact to show that they were.

There are a number of other ridiculous features in our young doctor's review of Dr. Schmidt's paper, but we have referred to enough to exhibit its character. In fact, we owe our readers an apology for consuming as much space with it as we have. But we justify ourself on the ground that a little amusement is beneficial, and that no one needs it more than physicians.

As regards the existence of a bacillus in tubercular tissue, as we have never investigated the subject, we can not say. We know that a good many claim to have seen it, and we make no objections to their believing in its existence. Dr.

Schmidt, of New Orleans, after most thorough research, failed to discover a bacillus, and has come to the conclusion that Koch has mistaken a fat-crystal for it. He furnished a Chicago journal, as we have stated, with a very full detailed report of his investigation, which it published. The report is written in as dispassionate style as an account of a series of microscopical processes possibly could be. There is no one abused or reflected upon in the least. In his article he states nothing he had not a right to state. If it should turn out that he was wrong, it would merely be proven he was mistaken, as very many learned men have been. But because he has exercised his right to differ from Koch as to the existence of a bacillus tuberculosis, that he should be abused and traduced and spoken of as if he were a fool, is simply monstrous; and no one but a person who wanted to draw attention to himself would, for a moment, think of doing so. Such an article as the young Cincinnatian has had published in the *Lancet and Clinic* would not be printed in the *Royal Microscopical Journal*, or any other scientific journal largely taken by microscopical investigators. It would be regarded as too trashy. Yet Dr. Schmidt has contributed to that journal and others of the highest scientific character.

DR. SCHMIDT'S STANDING.—Since writing the article, "*Criticising a Critic*," we have met with a lecture by Prof. Wm. Hunt, Senior Surgeon of the Pennsylvania Hospital, published in the *Medical News*, of Philadelphia. Prof. H., in speaking of the bacillus tuberculosis, says: "Now there is another antagonist at hand, one whom some of us know well, Dr. H. D. Schmidt, a former close colleague of Dr. Leidy and myself. When one sees that man, broken in health, lame, and with hands terribly crippled with rheumatism, one is lost in wonder at his enthusiasm, and at the way in which he produces his beautiful work."

This old man, who has expended a long life in scientific researches, at one time a close colleague of Prof. Leidy, than whom no one in the world holds a higher position as an investigator, and has himself a world-wide reputation as a natural scientist, and is regarded as an authority in Europe as well as in this country, is the one who is likened by a young doctor of Cincinnati to the persecutors of Harvey and other infamous men, is characterized as ignorant, having an uncultivated mind, is charged with being conceited, compared to a first-course student, a letter he wrote to a friend spoken of as a jumble of gibberish about germs, and his recent paper on bacilli a specimen of worthlessness. After the publication of this paper by the youthful professor of medicine, no one will deny to Cincinnati the right to claim the highest premium for the most complete specimen of young America, who holds in supreme contempt the old-time respect for seniority.

BAUSCH AND LOMB'S CATALOGUE OF MICROSCOPES.—We have just received the latest catalogue of Bausch and Lomb, giving a description of their various optical instruments, with prices. There is no doubt that this house is a pioneer in popularizing the microscope by affording good instruments at a low price. Before they entered the field as manufacturers, Tolles, Miller, etc., were asking such exorbitant prices for objectives, and accessories generally, that only the rich could afford an instrument of any value. A few would try to get along with the French triplets, but they were of such a worthless character as to be unsuited for scientific investigations. Messrs. B. & L. make a quarter inch objective that will resolve the p. angulatum by central light for the low price of $14, which a few years ago would have cost $60 or $70; a half inch, for $9, that would have cost $40 or $50.

Messrs. B. & L. make the following named microscopes: Library, Family, Model, Physician's, Investigator, and Professional. Either of these instruments, from the Model to the Professional, is suitable for scientific investigations. The Physician's, price $65, with two eyepieces, and two objectives, three-fourths and one-fifth, with improved glass stage and slide carrier, will be found to fully fulfill all the purposes of a physician.

B. & L. make several series of objectives. Their Homogeneous Immersion objectives are of the highest attainable angle. Unlike those of other makers of this class of lenses, they have adjustable mountings. They range in power from a quarter inch to a one twenty-fifth. The price ranges from is $100 to $200.

PROF. TRAILL GREEN'S ADDRESS.—We have received a copy of the address of Prof. Traill Green, M. D., LL. D., Professor in Lafayette College, Pa., delivered before the American Academy of Medicine, October, 1882. It is devoted to the consideration of the necessity of a thorough education on the part of those proposing to enter the medical education.

Prof. G. quotes Profs. Rammelsburg, Zupitza, Muhlenhoff, of Germany, that students having had a classical education make far more rapid and satisfactory progress in the study of the sciences than those who have had no training in the classics. This, we believe, is the unanimous testimony of observers.

As our readers are aware, the American Academy of Medicine has been founded for the purpose of encouraging increased preliminary education on the part of all proposing to become members of the medical profession. It has made, therefore, a requirement of becoming a fellow of it, the possession of the collegiate degree of A. B. or A. M. Prof. G's. address is an interesting presentation of the subject of which it treats.

A Novelty.—Dr. F. H. Darby, of Morrow, O., has devised a novel feature in the way of wrapping paper for physicians dispensing their own medicine, and druggists. He has had printed on a sheet of paper of quarto size when folded so as to make two leaves of four pages, two columns to the page, brief paragraphs calculated to instruct persons in medical matters—as regards the proper treatment of their physician, quack medicine, etc. Among these paragraphs are intermingled humorous expressions, so as to attract attention and secure reading. A package or bottle of medicine, wrapped in this paper, will likely attract attention by the reading on it, and much useful information be imparted, for which there would be no other means to impart. Here is one of the paragraphs: "Patients should always, when practicable, send for their physicians in the morning; time can then be divided in such a manner as to prevent interference of engagements."

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Original Contributions.

The Effect of Alcoholic Stimulants upon the Organs of Special Sense.

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Abstract of a Lecture delivered before the class.

THE first effect of alcohol is upon the brain. It acts as a stimulant, and produces an exhilarated condition. With this we have an increased or accelerated action of the heart. Alcohol not only has a tendency to affect the brain, but it appears to exert its influence and expend its force upon this organ and its branches. The toxic material is carried to the brain by means of the carotid and vertebral arteries. It is unnecessary for us to speak of the manner in which it is ushered into the circulation, as that is understood by everybody.

The action of this drug is different from any with which we are acquainted. Its vapor arises up as a smoke, and not only penetrates but saturates the entire substance of the brain. It diffuses itself through all of the structures, enters them from all sides, at first stimulating and then impairing their function. The first effect, then, is to increase the amount or to accelerate molecular action. Increased molecular action means an increased amount of nerve force, and this produces the exhilaration of spirits that is commonly observed as the primary effect. The length of time that the primary effect will last, is different in individuals. The conditions are, the amount taken and the susceptibility of the brain to the influence of the drug.

After the stage of excitement has passed off, then we have a change taking place in the nervous system. There is a dilatation and congestion of the blood-vessels of the brain, and also of those organs that receive their blood supply direct from them. But other organs that are supplied with a capillary system of blood-vessels, may become congested from the same cause.

Alcohol has a peculiar effect upon the sympathetic nervous system, that has heretofore been overlooked or neglected. It is through this system, chiefly, that it exerts its toxic influence upon the economy. The action is exerted upon the ganglionic system. The first action is that of an irritant. An irritation of a ganglia produces a congestion of the organ to which its filaments are distributed. A congestion produced from irritation of a sympathetic ganglia differs from an engorgement produced from any other cause, as one is reflex and the other is direct.

The toxic effect of alcohol is derived from the fusel oil which it contains. As fusel oil is a volatile principle, it diffuses itself throughout the brain, and has, as we have already stated, a peculiar affinity for the ganglionic system, and through this, extends its influence and effects to all parts of the body.

The first action has already been mentioned as an irritation to the cells. The cause of this irritation has never been explained. The fumes of the fusel oil penetrate all of the substances of the brain. It passes through the capsules of the cells and permeates every structure within them. This act of penetration produces what has been denominated irritation. This has only been surmised by the external signs that presented themselves. This irritation causes an increase in the size of the cells, producing not only an enlargement, but an increased amount of tension upon both the capsule and projections or prolongations. From this, then, we have an increased tension in the cells, or a state of high pressure. In this state everything is exhilarated or augmented. It is not until either this condition begins to pass away by not using any more of the drug, or, else, when we have what might be denominated secondary changes taking place in the cells and surroundings, that we see the effect upon the ganglionic system. In the first instance, we have the consequent depression following the elevation, and then a gradual return to the normal condition. But when we have structural or secondary changes taking place, as a result of chronic alcoholism, then we have quite a different condition presented.

As we have already stated, we have, at first, an actual increase in the size of the cell, presenting an appearance that is not unlike a dropsical condition. When this increase is marked, we have the state of exhilaration giving place to a condition of fullness of the blood-vessels of the brain. This engorgement is more apparent than real, for the distention and enlargement of the cells will not allow of a congestion of the intercerebral capillaries. The engorgement is confined to the vessels that are external to the brain substance proper.

The action of this irritant is not unlike a flame starting from the stomach as the furnace, for this organ is the receptacle into which the poison is poured. From this it enters into the circulation, and then the carotid arteries act as pipes or flues through which it is conveyed to the brain.

After the condition of hilarity or exhilaration has passed away, then we have a change taking place in the cells and brain substance. We are aware of the peculiar tendency alcohol has to contract and harden the tissues that have been immersed in it. The brain in the living human being is no exception to this fixed principle; and the brain in the living man will undergo a similar change, if exposed to the same cause. The extent and amount of change will be in direct ratio to the amount of immersion. The tissues surrounding the cells contract, and the cells having been permeated by this volatile substance, share the same fate. They not only contract, but are correspondingly hardened. It must not be understood by this that we mean that the action upon the living organism is the same as upon post-mortem structures that have been immersed in this fluid, but the tendency to the same result is not only exercised, but to a certain extent realized. The amount of contraction is not generally sufficient to prevent the brain and its auxiliaries from carrying on their function, but the action is greatly impeded.

In some cases the change may be so great that the actual intelligence will be replaced by mechanical action, and the individual, although still living, is simply an automaton, not being able to exercise any intelligence. We have all grades —from the mild exhilaration and temporary hilarity, to the most profound stupor and coma.

Some are very susceptible and easily influenced, and, in such, the change takes place rapidly. In others the structures are less susceptible, not so easily influenced, and the change is slow.

We notice a peculiarity in this class of cases when we contrast it with the action of opium. The action of the former is entirely opposite to that of the latter, after the first effect of irritation or stimulation has passed away. Then you may say, Why does not opium give the desired relief in all of these cases? The tendency is in the proper direction, but you must remember that you can not relax a capsule while you have an increase in its contents, and, consequently, an increase in the inter-capsular pressure. First relieve the tension upon the capsule, and then you will have no trouble in overcoming the difficulty.

Some scientists and writers, at the present time, promulgate the doctrine that chronic alcoholism is a disease; that the unfortunate inebriate is such, simply because he is a victim of circumstances; that he is a diseased individual upon the same principle as a lunatic, and should be cared for in the same manner.

In speaking of this condition, there are some important points that can not be presented in this article for want of time and space. By this we mean the psychological condition of this class of patients. There is no doubt but that we have a psychology of vice and crime as well as of intelligence and justice.

The inclination of some writers is to place all of the fault upon an inherited condition, in which this *mania a potu* has been transmitted as a family trait from father to son, or from parent to child. While we are willing to admit that a bias or depravity of character may be transmitted just as readily as a tendency to mechanical skill and invention, or literature and originality, yet *we must remember that with all of the tendency that can be transmitted, with or by heredity, development must follow.* This bias or faculty, as the case may be, must be cultivated, or it will remain as a gift undeveloped. Then we must place at least a part of the responsibility upon the victim, if he is a victim. They say still farther that he is unable to resist the temptation, and therefore is not responsible, because it is beyond his control. This is placing the human intellect in a very degraded position. It is justifying the inebriate on the ground that he is the victim of a peculiar form of disease, viz: dipsomania, for which he is responsible, yet not accountable. That this desire is sometimes received by heredity, we do not deny. That this hereditary desire is quite frequently cultivated, when it would otherwise lie dormant or latent, we all admit. That it is very commonly acquired, is self-evident. It matters not in what mode, or through what channel it presents itself, it must receive the approbation of the individual, or else it can not be developed. If it has been received by heredity, it will remain in an undeveloped or latent condition unless brought into use by exercise.

If the individual has no bias or depravity of this kind descending from his ancestors, then he must acquire it by deliberately creating the desire. In either case, a good degree of the responsibility for the formation or development of the habit must rest with the victim. After he has succeeded in producing the structural contraction or secondary change, this may reduce the power of the intellect to such a degree that it will no longer be able to dictate to and control the mind with reason, and the depraved appetite will sit enthroned as the master. When *this* change takes place, then the individual loses his individuality and is himself no longer. He has lost his identity, and its place has been taken by another whose sole object, apparently at least, is to see how much degradation and depravity can be produced. The depth to which the living human temple can be drawn is simply astonishing, and almost beyond comprehension. Notwithstanding all this, the intellectual light is not put out, but apparently, in some direction at least, is brightened. But this is done at the expense of the finer qualities, which must exist in the man who is true to himself.

We know that there is a disposition on the part of some to claim that a little debauch is not only a pleasant way to relax the tension of the mind, but that it is actually beneficial. For instance, a man has been engaged in some pursuit that required a high degree of concentration of mind for days, or even weeks. At the end of this time, they say that to overcome or counterbalance the strain or tension from continued concentration, that something to produce a relaxation is not only beneficial, but absolutely necessary. In their method of argument, nothing will do this so effectually as to keep the system under the influence of alcohol for several days. When we analyze this argument, we find that it will not bear the light of scientific investigation. The condition produced by alcohol is an artificial one, and is the reverse of what should obtain for pure rest for the mind. How can we expect to get rest from an intellectual strain by producing an alcoholic one in its place? Some undertake to induce both at the same time, and they may be able to do so up to a certain point, but beyond this nature will not submit, and she presents the horrible spectacle of a human organization in which there exists an intellect that is poisoned, and an imbecile is the result. The maudlin and incoherent manner of speech, together with the partial or complete loss of morality and respectability, are the symptoms by means of which even the street gamins and bootblacks can not fail to make a correct diagnosis.

It is evident from the very nature of things that alcohol will not give the proper rest and recuperation to a brain that has been subjected to a prolonged mental strain. The proper way to rest it is to give it rest, not work. As we have already seen that alcohol increases the tension upon the capsules, it is very evident, then, that this drug will not give the desired relief. Then we had better not resort to it.

Any drug that produces so much artificial stimulation as to increase the tension of the capsules, had better be left untouched.

If we desire rest for the brain, after a prolonged mental effort, there is nothing that will surpass pure air and a comfortable quiet place, whether that be in the country, at the seashore, or among the mountains. The time can then be passed pleasantly with friends, in viewing the wonders of nature, conversing, rowing, ambulating, etc. With this combine a generous diet, and then we have the best conditions presented for repairing or toning up of the overstrained parts. With these advantages, it is sometimes wonderful to behold the rapidity with which nature rebuilds or recuperates herself.

If alcohol is resorted to for the purpose of producing relaxation, then the question arises, Why is it that a few days of grace are required, or what is commonly denominated the sobering-up period, before work can be resumed? Can it be possible that the alcohol has produced so much relaxation that a few days are required for the tension to become normal? If this is true, then the increased relaxation would be just as detrimental as the high tension, and if one would have a tendency to irritate, the other would aggravate the normal balance of mental power.

As the continued use of alcohol has a tendency not only to contract, but to harden the cells and surrounding structure, it would naturally impair their function. They would not be able to transmit impressions as distinctly, or as correctly as they should, on account of increased resistance.

The organs of special sense all depend upon the condition of their cells for the performance of their various duties. They can not receive the impression properly if the cells are impaired. After it has been received, it can not be transmitted so that the brain shall receive a correct representation of the impression, if the cells are unable to respond to the impulse. Even after the brain has received the reduced impression, it is but improperly transmitted as an emanation. The result is, that we have an increase in the effort that is required for the reception and conduction of an impression, and a reduced picture.

Case of Peritonitis before Delivery.

BY J. H. COX, M. D., WEST LIBERTY, W. VA.

Mrs. C., aged twenty-nine, wife of a Methodist minister, was seen on Monday morning, January 22. She had reached her seventh month of gestation. Was the mother of two children—one aged seven years, and the other aged two years. She had not been very well since the Friday before —complained of some headache and constipation of the bowels. Very minute doses of comp. ext. colocynth, three times a day, were ordered, to keep her bowels in a soluble condition.

Was called again on Tuesday morning. She had suffered intense pain all night, with a constant desire for micturition, and to go to stool. There was some muco-sanguineous discharge, which she thought came from the bowels, which appeared to be the case. No dilatation of the os uteri—the uterus and all the pelvic viscera being in a state of hyperasthesia; bowels had not been evacuated; hemorrhoids protruding; pulse 110; tongue clean, and red at the edges. Learned that she had never aborted, but after her last confinement, had been in a bad state of health for a considerable length of time; and had been troubled with prolapsus, vaginitis, hemorrhoids, and alternate constipation and diarrhœa.

Ordered injections of soapsuds, the hemorrhoids to be replaced, and prescribed sulphate of morphia.

At two o'clock P. M. found her partially narcotized; suffers some pain at the lower part of the abdomen, which she attributes to not being able to urinate. Passed a catheter and drew off half a pint of highly colored urine. Urethra was contracted, and excessively tender; no dilatation of the os uteri; the uterus and all the adjoining parts tender to the touch; pulse 110; temperature 102. Continued treatment.

Seven o'clock P. M. Condition about the same, but the pain in the bowels had returned. Directed an injection of starch and laudanum, which being thrown off, was followed by a suppository containing morphia. Fomentations to the genitals and abdomen to be applied, and continued all night; the other treatment continued.

Wednesday morning. Patient thinks herself much better. Pulse 108; temperature 100; occasional uterine pains; bowels quiet; soreness nearly subsided; passed her urine naturally, without pain, during the night. Continued the suppositories and sufficient morphia by the mouth to keep her partially narcotized.

Wednesday evening. Case about *in statu quo.*

Thursday morning Pulse 120; temperature 102½; pains returned and vomiting set in Continued treatment, with the addition of sub-nitrate bismuth in full doses.

One o'clock P. M. Pulse 140; temperature 104. Called in consultation my friend, Dr. Kelley, and sent to Wheeling for her former family physician, Dr. Hupp. While Dr. Kelley and I were in consultation we were informed that the membranes had broken, and we repaired to the room. We found considerable dilatation of the os; strong labor pains set in, and in an hour she was delivered of a living seven-month's child.

We did what is usual in cases of labor; and that we might see what turn the case might take, and that we should not anticipate the treatment of Dr. Hupp, whom we expected soon, all treatment was discontinued until eight P. M. (Dr. Hupp could not come:) Condition: Face flushed, with purple blur on each cheek; pulse 140, with considerable force; temperature 104½; vomiting; diarrhœa, and great pain and tenderness. Treatment: Turpentine stupes applied to the abdomen; suppositories containing morphia to the bowels; opium and bismuth by the mouth, together with tr. aconite and tr. verat. viride.

Friday morning. No improvement; pulse had lost its force; gave morphine, quinine and whisky.

Friday evening. Vomiting and diarrhœa have nearly ceased. Took nourishment better than for some days past, and enjoyed apparently refreshing sleep for an hour at a time. Temperature 101; pulse irregular, and can not be counted correctly; a warm moisture covers the body. She appears better; but, *oh! that ugly pulse!*

About three o'clock Saturday morning respiration became irregular, and at twenty minutes to seven she breathed her last.

There are questions of interest in this case. In the literature of the medical profession we have cases in which peritonitis set in during labor, and even before, but we had supposed them rare cases which had been under some contagious influence; or, that there was a peculiar vitiated state of the system predisposing to inflammations; or, that it might occur in those protracted labors that sometimes last for many days. In this case, though she had suffered from local troubles, her system did not appear in a depraved state; and treatment was commenced at an early period and faithfully carried out to the end. Had we seen this case twenty years ago at its incipiency, we would have considered ourselves censurable if we had not bled her sufficiently to make a decided impression on the general system. Now we would not have the support of the medical profession in such treatment. Were we all wrong when we bled? We once adopted that course, with satisfactory results. It is true it did not break up the disease when established; but may it not, when properly used, have modified the disease, so that it ran a more mild and less fatal course? And in past years, when we bled, we have perhaps seen cases where we had every reason to believe that peritonitis was setting in, and an efficient bleeding, with other treatment, sometimes aborted the disease, or we thought so. In the country, we may be governed too much by the teaching of men who practice in hospitals in large cities, and have a different class of patients from ours.

Translations from Foreign Journals.

BY DR. ILLOWY, CINCINNATI, O.

IODOFORM IN THE TREATMENT OF CHRONIC BRONCHO-PULMONARY AFFECTIONS.

PROF. CHIAMARELLI, encouraged by the results obtained by Prof. Semmola with iodoform in the treatment of chronic broncho-pulmonary affections, has experimented with this agent for a period of four years in the Hospital for Incurables, and in various maladies of the respiratory tract. In phthisical patients, even at an advanced stage of the disease where cavities were already formed, iodoform gave the author excellent results. In every case there resulted a diminution of the expectoration, a general amelioration, and a beneficial influence on the febrile manifestations. In recommending this remedy for pulmonary phthisis, the professor believes that the remedy possesses the properties of arresting the progress of the disease and of prolonging life. In many individuals affected with chronic bronchitis with bronchorrhea and pulmonary emphysema, it has rendered great service. The formula employed by him is as follows:

Iodoform,	grs. iss.
Pulv. lycopodii,	grs. iss.
Lactucarii,	q. s.

M. Make a pill. Three to five of these pills to be taken daily. It may be prescribed with extract of gentian, or with the extract Seminis Phellandrii (water fennel); or, if there be such indication, with quinine or a salt of iron.—*Progres Medical—Lyons Med.*

SUPPOSITORIES OF ERGOT.

Dr. Liebrecht, of Liege, has adopted the practice of Dr. Robert Bell, of Glasgow, of using ergotine in the form of suppositories. The absorption is rapid, and the action energetic without causing pain. With doses equivalent to those used hypodermically, the same, if not superior, results are obtained. The following is the formula:

Ergotine Dyalized,	grs. xxiii.
Cacas Butter,	grs. xxiii.
Vaseline,	grs. viiss.

Make one supposit. The suppositories are employed three a week, on alternate days. The affections for which the hypodermic injections of ergotine or the suppositories are recommended by the author, are: Fibroids, menorrhagias, metrorrhagias of parturition, of the menopause, or due to the presence of tumors; lastly, for chronic endometritis.

For hypodermic use, Prof. L. employed dyalized ergotine only, used pure, about a third of a syringeful of Pravaz, to a syringeful. Dyalized ergotine keeps well.—*Progres Medicale—Union Med.*

SUCCESS OF SULPHATE OF ESERINE IN TETANUS.

Dr. Laiton, in the New Orleans *Medical Journal*, reports a grave case of tetanus in a child eleven years old coming on three weeks after receiving a wound in the foot. Having tried the bromides, chloral, cannabis indica, etc., without success, he prescribed milligramme doses (1-70 gr.) of sulphate of eserine in a mixture, every two hours. There were no manifestations of intoxication, no contraction of the pupils, but a gradual amendment of all the symptoms, which permitted of the dose being insensibly diminished.

In one week, three grains of the sulphate of eserine had been taken; all medication was then suspended. There remained nothing but a slight trismus, which disappeared in about two weeks.—*Tribune Medicale.*

APOMORPHINE AS AN EXPECTORANT.

Dr. Beck has employed the muriate of apomorphine as an expectorant in sixty-three cases of bronchial catarrh and thirty-one cases of broncho-pneumonia. The secretions became more fluid, and the thick and heavy expectorations of the bronchi, especially in broncho-pneumonia, are more easily thrown off. This is the formula for an adult:

Chlorhydrate apomorphia, . .	gr. 1-15.
Dilute muriat. acid, . . .	gtts. xv.
Distilled water, ...	℥ iv.
Syrup, ...	℥ i.

M.

The dose a tablespoonful every two, three or four hours. For a child from three to ten years, half the dose is ordered, which can be administered a teaspoonful every hour.—*Tribune Medicale.*

ANTI-RHEUMATIC MIXTURE (THOMAS).

℞ Potass. acetatis, ...	ʒ xv.
Acid salicylic, . . .	ʒ ii, grs. 45.
Aq. menth. pip., ...	ʒ xxx.
Syrup lemon, ...	ʒ xv.

Dissolve the potass. and the salicylic acid in the peppermint water. The dose a tablespoonful every two, three or four hours. Each tablespoonful contains about eighteen grains of salicylic acid and about 1½ drachms acetate potass. The salicylic acid is well dissolved in this mixture, and will not trouble the digestion.—*Tribune Medicale.*

PERMANGANATE OF POTASS. IN GONORRHEA.

Prof. Teissl, of Vienna, after recalling the more or less grave inconveniences resulting from the employment of too concentrated caustic solutions, mentions the fact that he has seen a certain number of strictures, which could be attributed to too strong injections of permanganate of potass. This agent is in great favor to-day in Vienna. Its good effects can not be denied. But Prof. Teissl affirms that a weak solution formulated thus:

Permanganate of potass.,	1-7 gr.
Water,	ʒ xxv.
M.	

And deprived of all caustic action, is sufficiently astringent to achieve the purpose desired. Of this fact, he has convinced himself in several instances. It is natural to attribute part of this effect to the antiseptic properties of the permanganate.—*Tribune Medicale.*

VULVITIS OF LITTLE GIRLS.

The affection described in the classical treatises under the name of "*Vulvitis of little girls,*" is not a simple vulvitis, but is always a "*vulvo-vaginitis.*" It arises either from some constitutional vice, due to bad hygienic surroundings or faulty nutrition, or from local irritation from uncleanliness The flow is purulent, thick, yellowish or greenish-yellow.

The treatment must be directed against the lymphatic or herpetic diathesis on the one hand, and against the local state on the other.

1. Daily baths, to which are added about thirty-five ounces of common salt and a few ounces of starch.
2. To take daily before meals a teaspoonful of the following syrup:

℞	Tinct. sod.,	grs. xv.
	Potass. bromide,	grs. 45.
	Syr. tolu,	℥ v.
	M.	

and to drink mixed with wine at meals of a solution of bicarbonate of soda of seventy-five grains to a litre of water.

3. Mild laxatives, as castor oil, manna, etc., weekly.
4. For local use, injections of the following:

℞	Glycerine (neutral),	℥ iv.
	Alum and potass. sulphate,	grs. 45.
	Sydenh. laudanum,	grs. 30.
	M.	

Injections to be made with a small rubber syringe, with small point, and the mixture to be thrown up as high as possible into the vagina. A teaspoonful in half a glass of warm water for each injection—morning and evening. Leave a pledget of charpie, imbibed with this solution, between the lips of the vagina.—*Revue M. and Ch. des M. d. f. Progr. M.*

MALARIA OF THE EAR.

The *Revue des Sciences Medicales* publishes several observations, taken from a German journal, demonstrating the influence of malaria on affections of the ear. The cases are not of the variety of malarial neuralgia, but veritable inflammatory affections, receiving a peculiar impress from the malarial influence, and promptly modified by quinine. The first observation is a case of acute suppurating otitis media, following the introduction of cold water into the nose; local treatment ineffectual; the administration of quinine followed by a rapid cure. The second case, analogous to the first, an acute catarrhal otitis media. The third observation is an example of what Weber-Liel has described under the name of intermittent otitis. The patient suffering from tertiary syphilis, the author was for a while on the wrong track, until one day when he observed that the state of the ear was good one day and bad the next; that the exacerbations were very clearly tertian in character, the patient living in a malarial district.

The mildest topical applications directed against the discharge produced a violent reaction. This the author considers an important characteristic; if, moreover, the anatomical changes are not in rapport with the violence and extent of the nervous phenomena, if the whole auricular region be painful, the objective phenomena excluding all complications, then we must admit the acute otitis to be malarial. Physicians have mentioned otorrhea as occurring in the course of intermittent and remittent fevers, and it may be that this reflection of the malarial influence upon the ear is more common than generally supposed.

After the manner of Voltolini, the author gives the quinine in small repeated doses (one or two grains of quinine every two hours in a tablespoonful of tea), with an equal quantity of Dover's Powder.

EPISTAXIS ENDANGERING LIFE.

In severe and dangerous cases of epistaxis, where the hemorrhage is sufficiently large to threaten a fatal termination, Dr. Louis Roth recommends the acetate of lead in combination with opium:

℞ Plumbi sub-acetate, . . . grs. iss.
Pulv. opii (pura), ... gr. 1-7.
M. Ft. pulv. No. 1.

One such powder is to be taken every two hours. The author adds that one of his patients took, in three days, forty-five grains of the plumbi acetate and nearly six grains of opium before the hemorrhage was completely checked.—*Memorabilium*, etc.—*La Presse Medicale.*

ETIOLOGY OF NASAL CATARRH.

Dr. Walb, in *Archiv. f. Ohrenheilkunde, B. xvii.*, *Heft* 4, reports the case of a colleague afflicted with a nauseating, purulent discharge from the nose, provoked by a carious tooth. The extraction of the tooth and antiseptic treatment, only were able to arrest the discharge. Another proof that a suppurative affection of the mouth can engender a nasal catarrh.—*La Presse Medicale.*

Selections.

Suffolk District Medical Society.

ABLBERT N. BLODGETT, M.D., SECRETARY.

DECEMBER 13, 1882. Meeting called to order at eight o'clock by Dr. George B. Shattuck, Chairman.

Dr. Morton Prince read a paper entitled,

THE TYPHOID EPIDEMICS OF THE LAST DECADE, AND THE NECESSITY OF COMPULSORY DISINFECTION.

At the conclusion of the paper, Dr. H. I. Bowditch said that such a vigorous and outspoken plea for sanitary education and sanitary reform led him to feel new courage, and inspired fresh hopes. The able arguments presented, and the strong array of facts which were produced, should force conviction upon every listener, and be followed by a better appreciation of the value of sanitary work, and the necessity of strengthening the hands of those who are striving to diffuse intelligence upon this momentous subject. The legislature should be petitioned to amend and enact laws which shall enable the health officers of the State, in both central and local boards, to more fully and perfectly carry out the work of sanitary reform. Dr. Bowditch remarked that he was, at one time, connected with the State Board of Health, which endeavored to do good work in educating the people to an appreciation of the extreme dangers of filth pollution, and to other hygienic necessities. The action of the State authorities made it necessary for him to resign that position. At present, the State Board is powerless to carry on any sanitary work, and is burdened with other duties of a different nature. Boards of Health should be entirely independent of any other relation, and should devote their sole energies to the sanitary protection of the citizens, aided by such laws as may be required for the proper performance of this duty.

Mr. Ernest W. Bowditch said that he was very much interested in the paper, particularly in those portions relating to the diffusion of the typhoid infection by means of drinking water. Chicago has adopted the dangerous experiment of pouring its sewage into Lake Michigan, near the shore of the lake, and drawing its supply of drinking water from the same source, at a point only a few hundred feet distant. There would seem to be a constant danger to the health of the inhabitants from this cause, and an epidemic might break out at any time.

Dr. E. A. W. Harlow asked the distance to which surface pollution might extend so as to manifest itself by contamination of well supplies.

Dr. Prince replied that this depends upon a variety of circumstances, such as character of soil, inclination of the surface or of the stratification of the soil, the nature of the subsoil, and the amount and character of the polluting material. Direct contamination of well water has been proved in distances of sixty to one hundred feet. One case is reported in which the poison traveled many hundred feet in a valley and contaminated the water of wells at a lower level. The epidemic at Lausen was very peculiar in this way. Here the infection passed under a mountain and appeared in the water supplying the village on the other side. This fact was established by impregnating the water of the brook with coloring matter, which reappeared in the water issuing from the other side of the mountain, as well as by dissolving certain chemical substances in the brook, which were detected in the water supply of the village. This constitutes, perhaps, the most interesting and striking source of typhoid infection which has thus far been recorded.

Dr. Marcy thought that this paper struck not only at the source and prevention of typhoid fever, but of all germ diseases. We are now rewriting all our books in consequence of the knowledge which has been gained in the domain of infectious diseases, and the former limits of this class of diseases have been vastly enlarged, and may in the future be made to include many diseases not now supposed to be due to germ infection. As an example of this he mentioned a house in Blandford, Mass., situated at the foot of a decline of about twenty degrees, from a cemetery which was one-fourth of a mile distant. This house has its water supply from a well, and has been the scene of repeated ravages of severe typhoidal and other febrile diseases.

Some years since he examined the village of Littleton, Mass., where an epidemic of typhoid had prevailed. The soil is a clayey loam with substratum, perhaps twenty feet below the surface, of clay. Surface drainage infiltrates to this almost impervious strata into which the wells for the household supply of water are sunk. There are on one street twenty houses which have been visited by typhoid fever, and the disease is constantly recurring. In every case where the disease has occurred, and indeed common to the whole town, the privy and the well were in close proximity to each other. In the present state of knowledge upon the subject of hygiene, we must believe that sanitary protection is necessary not only in typhoid fever, but in all diseases of an epidemic character. In twenty-eight States of our Union laws have been passed looking to sanitary reforms and protective hygiene. In twenty-two States laws calculated to regulate the practice of medicine have been passed. Massachusetts will certainly be recreant to her duty if she fails to keep fully abreast of the latest revelations of sanitary science, which must always constitute the most important protection to our people against the ravages of epidemic diseases. Physicians are at present more to be blamed than are the people, for the people depend upon the medical profession for instruction in matters of physical well-being.

Dr. J. H. McCollom. By far the greater number of cases of typhoid occurring in the city are those in which the disease has been acquired in the country, and is developed after returning to Boston. The disease is highly infectious, and is readily contracted in summer resorts, owing to the almost universal lack of sanitary knowledge, and the many conditions there present by which the poison may be disseminated among our peripatetic summer population.

The better class of patients are not only willing but are generally anxious to take every protective measure in typhoid fever, and disinfection of the discharges may be perfectly carried out in most cases. For this object a small quantity of sulphate of iron may be placed in the bed-pan, and after the dejection a small quantity of muriatic acid may be poured over the discharge, after which hot water should be added before pouring into the water-closet.

Dr. Durgin said that typhoid should certainly be carefully disinfected, and at least half a dozen other diseases should be similarly treated. Physicians should realize more thoroughly than they do the grave necessity for these precautions, and then the public will soon learn to value the labors of sanitary reform. Boards of Health can accomplish but little without the co-operation of the medical profession. Over a year ago the origin of typhoid in Boston was made a subject of investigation by the Board of Health, and those investigations are still being carried on. Milk, water and food have all been subjected to examination as possible channels of infection, but as yet the results obtained are very meager.

Mr. Putnam asked if the ordinary water seal in traps is a sufficient protection against the infection of the air in dwellings from sewer gases. This question is one of great and increasing importance to architects and plumbers.

Dr. Prince replied that recent experiments in Chicago show that a water seal may be traversed by gases without the aid of pressure. This was shown by means of a U-tube containing water. In one end of the tube was placed sulphureted hydrogen gas, and in the other end were pieces of clean metallic lead. In a short time the surface of the lead was blackened by the action of the gas, which had passed through the water seal without the aid of pressure. Sterilized fluids were also infected by the passage of germs through the intervening water seal.

Dr. G. B. Shattuck referred to the experiments and conclusions of Carmichael of Glasgow. His results indicate and support a different opinion.

In connection with the question of contagion Dr. J. C. Warren called attention to the work of French and German observers of the relations of bacteria to this disease.

Eberth has found a short bacillus in the mesenteric glands and spleen in a large number of cases of typhoid, and he noticed that the organisms in some cases were in an inverse proportion to the duration of the disease; but there were also a considerable number of cases in which he could find no organisms. Koch has found the same form of bacillus in all the internal organs in cases of typhoid; he has also seen other forms, namely, long bacilli and micrococci, but these latter he connects with sloughing ulcers of the intestine, finding them only in internal organs in the later stages of the disease. He does not yet feel authorized to speak definitely as to the pathogenic character of the short bacillus, as he also has failed to find it in about half the cases. Dr. Maragliano, of Genoa, has found organisms in the blood of typhoid patients during life. The blood was obtained by means of a hypodermic syringe, which was passed through the abdominal wall into the spleen. Blood was also taken from the tip of the finger with proper precautions. The examination of fifteen patients showed that at the height of the disease the blood of the general circulation contains micrococci and bacilli, the latter resembling both kinds mentioned above. During convalescence these organisms lessen in number; also when quinine was given in large doses they diminished greatly in number, or disappeared altogether. Both the long and short bacilli were obtained from this blood by the "fractional cultivation."

Dr. Warren reminded the members that there were other elements to be considered in the etiology of typhoid beside that of contagion. The well-known tendency of the disease to reappear in waves of several years' duration, and then subside spontaneously, was familiar to hygienists. The State Board of Health of Connecticut had recently called attention to the subsidence of malaria in Connecticut, and also in Massachusetts, where it had within a few years been reappearing coincidently with the return of typhoid.

Prof. Ceri has come to the conclusion, as the result of his experiments with malarial germs and soils, that what he calls the *natural germs* of the soil are to be distinguished from the same variety when cultivated, which then have acquired a diminished power of resistance, both to the action of heat and quinine. These influences cause an arrest of the action of the germ without its destruction. The rise and fall of epidemics is said to be due to a gradual weakening of the organisms, caused by cultivation from individual to individual in the human system. The germs which have thus lost their infective power may, under favorable circumstances, regain that power by again becoming natural germs. Infected localities may become disinfected whenever favorable conditions, which are necessary to preserve the natural quality of the germ, cease to exist or are removed.

Dr. Marcy alluded to the investigations of Sternberg, in which septic matter was introduced into the tissues of animals, and caused death by processes resembling in some cases the symptoms of typhoid.

Dr. Bowditch spoke of the universal presence of bacteria in the mouths of healthy and cleanly persons. He showed these organisms to the late Prof. Agassiz, who was disinclined to believe that they were ever to be found in the mouth unless there was disease present, until he discovered them in his own mouth. Only one case was examined in which they were not present, and in this case soap was used in cleansing the teeth after every meal. The patient was a young lady. Dr. Prince spoke of a virulent outbreak of typhoid from eating the flesh of an infected animal, which must therefore have been supposed to have been suffering from typhoid. This is a new and unexpected source of danger in this disease.

Dr. Marcy mentioned the typhoid infection of drinking water from the bodies of those dead with this disease, by means of leaching from the cemetery to a well, which was located on a lower level, though some distance away. Thus it seems that the poison of typhoid is equally potent whether it be taken in bulk, with food, or in the form of a cold infusion, as instanced in the graveyard pollution. The question at once arises as to what we shall do with the infected bodies of those dying with typhoid or other epidemic diseases, which seem to be able to affect the public health, even when buried in the earth. Here would seem to be a most important reason for advocating the cremation of the bodies of the dead, particularly in cases of infectious or epidemic diseases.—*Boston Med. and Surg. Journal.*

Mott Medical Club, of Pittsburg.

Stated Meeting, January 8, 1883. *Dr. William Wallace in the Chair.*

Dr. J. Chris. Lange read a paper entitled "Some Cases of Diphtheria Treated by Mercurials."

He said our knowledge of the action of mercury on the system may be defined, briefly, as follows: Its effects are chiefly owing to a corrective influence on the quality of the circulating fluids, first; and, secondly, it is generative of more or less complete processes, antagonistic to, or substitutive of, diseased action or abnormal processes. Under its influence the secretions and exhalations are increased, the textures softened, morbid growths and deposits are removed, or their increase more or less perfectly hindered. Visceral and glandular enlargements diminish or disappear, phlegmonous inflammation of every kind is opposed, and in all inflammations hyperinosis is diminished; the red corpuscles are less inclined to aggregation, and the white ones to adhesiveness. The exudation of plastic lymph is limited, and, as a consequence, also the formation of false membranes. Further, mercury softens and destroys the tissues, impoverishes the blood, interferes with nutrition, and produces a condition of marasmus and cachexia.

In the consideration of the mercurial treatment of diphtheria—as in any other—the question arises: What do we desire to effect by the administration of the chosen remedy? The answer to this is that by its exhibition we desire to so modify it—the poison in the blood—and to so limit its pernicious action on the system, together with its product, that the patient may live during its continuance. It is proper to inquire, then, what are the events which, in diphtheria, threaten to terminate life; in other words, what are the causes of death, and, also, what influence has mercury on them?

The six cases to be presented for consideration are the most unfavorable of a series of forty-three cases, treated by mercurials during the last two years. The other thirty-seven cases recovered, as they probably would have done under other reasonable treatment, as we have had, fortunately, no very malignant epidemic during this time. The six cases were such, as under other various plans of treatment formerly employed by me, almost invariably proved fatal.

The poison itself may be a cause of death; this may be so virulent, that life is incompatible with the blood that contains it, and the patient dies as soon as the unknown chemico-vital changes in the blood are sufficiently complete.

Case I.—E. S., female, aged thirteen years, Coal Hill, South Side. First seen on the morning of February 12, 1882. Temperature 105°, pulse 140; extremities cool; had vomited once during the night, and complained of sore throat the day before, but had not seemed very sick. Membrane on tonsils; cervical glands enlarged, and cellular tissue infiltrated about the throat. She is restless and stupid; moans and tosses about in bed; she had passed a normal amount of urine, and had an evacuation of the bowels that morning; her abdomen was tympanitic. The next morning she had a collar of brawn; great tympanitis; congested conjunctivæ, and was comatose; she died at two P. M., that second day. I may mention her treatment, not as illustrative of either good or harm, for none could have controlled or even modified the action of the quantity or virulency of the poison she had received; it was ten grains of calomel every hour, with ice to the throat, and stimulants.

Another cause of death, is the exudation of the membrane upon the mucous surface of the larynx, trachea, or both; with the tumefaction of the tissues beneath and about it. What can be expected of the mercurial treatment in this condition? It is freely asserted here in our city, that benefits impossible to be attained by other methods of treatment, are its results; and the cases related below would seem to agree with the assertion. If it be true that the membrane accompanying the laryngeal inflammation, and the tumefaction of the underlying structures be only in the least diminished, this would be of the greatest importance in this particular situation of the inflammation; and is it unreasonable to grant—with the knowledge that mercury opposes hyperinosis, and limits the exudation of coagulable lymph—that it may also do this in diphtheria, thus limiting the size and thickness of the membrane, and moderating the inflammation? If the obstruction of the air passage be sufficient to give rise to urgent symptoms of asphyxia, surgical measures will remove the patient from this danger to life, and expose him to another, to be mentioned further on. An interesting question is, what determines the inflammation to the larynx in one patient, and not in another? It is not the intensity of inflammation, nor the duration of the disease; for we see in one patient the faucial membrane reproduced one or more times, the larynx remaining exempt; and, again, the larynx involved before the detachment of the first faucial membrane, or, if true croup be diphtheritic, without any faucial membrane. With the fact at hand, that a certain individual will, from cold or exposure, take a tonsillitis, and another a laryngitis, and yet another a coryza, it is fair to assume that the surface selected by a diphtheritic deposit is determined by the same force.

On the thirteenth day of April, 1881, I was called to attend a girl seven years old, living on Stanton Avenue. She had had faucial diphtheria five days, the membrane was now being detached, and she had croup since the day before. She had been treated by a homeopath, who had left the case with the statement that she could not live ten hours. I gave her ten grains of calomel every two hours for twenty-four hours. On the 14th, the following day, dyspnœa was extreme, the extremities cool and blue, as were the lips; spasm of the glottis was frequent, and left her wet, cold and blue. The treatment was continued until the morning of the 15th, when a slighter degree of dyspnœa being perceptible, the quantity was reduced to five grains. During the forty-eight hours in which she had taken four drachms of calomel, she had three stools. She continued to improve, and, on the 19th, the sixth day, her larynx was clear and her voice restored, when treatment ceased. She was slightly ptyalized; she had taken one ounce of calomel. After the first forty-eight hours her bowels had not moved; she had no sequelæ. On September 11, 1882, this same patient was now eight years and five months old. Temperature 104½°; pulse 120; membrane on both tonsils and posterior pharyngeal wall; ten grains of calomel were given every two hours for forty-eight hours; bowels moved once. On the 13th, the third day, temperature 102°; pulse 120. From the 13th to 17th, five grains every two hours. From the 11th to 17th, she took one ounce. Bowels not having moved since the 12th, a spoonful of castor oil was given, and the mercurial continued. This patient would take absolutely no nourishment of any description, and very little water. On the 18th, membrane almost gone from fauces; slept all night, except when disturbed to take her powders; had two evacuations of the bowels, and took the first spoonful of nourishment this morning. On the 19th, temperature 102°; pulse 130; a new membrane forming on fauces; one-eighth-grain corrosive sublimate every two hours; calomel discontinued. On the 20th, temperature 101°; pulse 140; membrane larger and thicker than the first; patient exhausted; will not take spirits, nor meat extract, nor quinine, nor milk. Nasal and laryngeal mucous membranes free from the inflammation. Has always passed urine. Died on the 21st, of exhaustion.

This patient took absolutely no nourishment from the onset of the disease, and emaciated remarkably during the first few days. The history of these two attacks of this patient demonstrates: First. Either that the mercury exhibited early in the second attack prevented a laryngitis, which occurred during the first attack, before she had had mercury, or that a laryngeal inflammation, in diphtheria, is entirely accidental, and not determined by any idiosyncrasy as is the simple inflammation of the larynx, tonsils, or Schneiderian membrane, from cold or exposure; and next, that mercury is not a specific for diphtheria. This patient certainly had a sufficiency of it; one ounce and two drachms of calomel, and two grains of the bichloride; and the formation of a second membrane demonstrates that it entirely failed to control or modify the virulency of the poison. And, thirdly, in this aspect of the matter, namely, that the disease was not favorably influenced by the treatment, it is a justifiable conclusion that the treatment she received during her first attack may have had nothing to do with her recovery. This patient died of exhaustion; there were no complications, nor was there any other cause of death. I was at the bedside when she died. She was conscious, and asked for water; to give her this I raised her up, when her heart failed and I laid her down dead. It is proper to inquire how much, if any, of the direct cause of her death, exhaustion, was contributed by her treatment; this will be spoken of further on.

Another cause of death is uræmic poisoning; this is a rather rare occurrence in diphtheria, as rare as albuminuria is frequent, and this latter is rather a matter of scientific interest than of practical importance. It is not an unfavorable prognostic sign, and requires no special treatment.

Another cause of death, also rare, is said to be "blood-poisoning" — secondary blood-poisoning, from absorption from the affected surface. When in a certain patient, about to die, this absorption is said to have taken place, its signs and symptoms are so indefinite and mysterious, and so complicated with the signs and symptoms of the primary poisoning, that it must be confessed a gratuitous assumption; it is not indicated by the signs and symptoms of septic or purulent absorption in other conditions.

Another cause of death is when the membrane forms in the nares. The nasal diphtheria, especially when preceded by a deposit on the fauces, is very fatal. This is sometimes accredited to the, I think, erroneous assumption that the inspired air, passing over the affected surface of the lungs, is impregnated with the exhalations, and, perhaps, the special poison of this surface, or that there being so much surface in this situation (anterior and posterior nares), the membrane becomes correspondingly large; whereas, the truth is, these patients do not breathe through the nose—the nares are effectually closed, except to forced efforts; and there is no evidence to justify the belief that the soil in the nares is more favorable to the growth of the membrane than that in the pharynx or larynx; indeed, from its rarer occurrence here, it may be asserted to be less so. What so largely contributes to the exhaustion is, it seems to me, that these patients must keep their mouths open; and with their mouths open they are never in a state of rest, but in a state of continuous muscular action; this constantly disturbs the patient during sleep; he falls asleep, his mouth closes, want of breath wakes him up, he can not open his mouth while asleep, and this recurs every few minutes; hence, I have found it beneficial to insert between the teeth a pencil, or other suitable object, that his muscles may relax, and he may still breathe. This closure of the nares is also an additional impediment to his swallowing. The air compressed, during the act of swallowing, exerts a painful pressure on the pharynx and posterior nares when it can not escape through them. Again, when the nares are closed, the blood retains more carbonic acid and obtains less oxygen; it requires an effort to breathe, and an effort to breathe, under any circumstances, implies imperfect oxygenation of the blood; a person running breathes with an effort, because of this; a person with pulmonary emphysema might breathe faster, and so perfectly oxygenate his blood, but as this would be a voluntary act, and would require an effort, he does not do it—can not do it long—and so exists with the least amount of oxygen, and the greatest amount of carbonic acid, compatible with his particular status of health; and the same is true of the patient with nasal diphtheria. These seem to me the principal circumstances that contribute to the fatality of nasal diphtheria.—*Phil. Med. News.*

Improper Use of Sulphate of Quinine.

BY C. A. BRYCE, M. D., RICHMOND, VA.

An agent of such general value and extensive employment as quinine, and one so potent for prompt and decided therapeutical action, is certainly liable to abuse, and in careless hands may be productive of great harm. Quinine has its toxicological effects as surely as physiological and therapeutic properties, and it is as a toxic agent that I will notice it in this paper. For years I have been convinced that it is too recklessly used by the profession, and my own experience has taught me to be more careful and discreet in its administration. I have so very often seen intense *congestion* of the *nervous centers* from overpowering doses of this drug, as well as other remote effects due to its impression upon the central nervous system, that I now consider well the size of the dose I shall administer. I have for a long time gradually given it in smaller and smaller doses, obtaining better results with fewer unpleasant symptoms, just in proportion as I have brought my patients gradually under its physiological and therapeutic influence. If the only ill effects of overdoing with quinine were the nausea, tinnitus aurium, frontal headache, and temporary depression, I would consider this paper altogether unnecessary. It is, however, the more serious and dangerously injurious consequences to which I would call attention. While quinine in general, when properly and judiciously administered, relieves congestion, equalizes the circulation, acts well upon the skin, and, to some extent, combats shock and nervous collapse, such is not by any means the case in every instance, for the reverse condition many times obtains, and *these very symptoms* and conditions are produced and intensified by this same agent.

A few cases from practice will best illustrate some of the pernicious effects of the lavish use of quinine. I have time out of mind seen cases of intermittent fever in which the chill had been anticipated and warded off by the timely use of the remedy, but in which the patients for hours would be terribly depressed. They would have the soft, clammy skin, the weak, compressible pulse, the sighing and labored respiration, all of which indicates nervous shock and threatening collapse, and this all due to the profound impression of quinine upon the nervous centers.

This is nothing uncommon. All my friends in the profession who have ever given as much as twenty grains of this drug at one dose have seen the same symptoms.

On one occasion I had a lady patient suffering from facial erysipelas. She had had a rise of fever for two days, with some very unpleasant cerebral symptoms. On the third day, finding her pulse increasing in frequency and volume, with an increase of temperature, I decided to attempt to check the fever with a commanding dose of quinine. Accordingly, I gave fifteen grains of the sulphate at a dose. In three hours she was in a state of collapse, and for a long time it was feared she would not react. Brandy, ammonia, and hot whisky fomentations vigorously used for several hours, finally produced reaction.

Last summer I was telegraphed to go to West Point, Virginia, to see a very sick child, in consultation with two of the physicians of that place. The little sufferer was a bright boy two years of age, whom I had assisted into this world while its mother was a resident of this city. The child had been sick for a week, and the attending physicians said it was suffering from "chills and fever;" but, said they, "It is so very weak it can not stand up; we never saw chills do a child so badly before." The little patient was cool, clammy, pallid, and very much depressed. I recognized at a glance "quinine prostration," and to my surprise learned that the child had taken *twelve grains* of the sulphate of *quinine daily* for four or five days. In attempting to persuade the child to stand up, I found that it had unilateral paraplegia, and told the attending physician that he had a case of quinine paralysis. The child was put on one-third grain quinine three times a day, with two grains potass. bromid. and two drops fluid extract ergot, and an occasional painting of the dorsal and lumbar regions of the spine with a weakened tincture of iodine. In six weeks he was well.—*Medical Herald*, of California.

Physicians and the Crime of Suicide.

In a paper recently read before the New York Medico-Legal Society, by its President, Mr. Clark Bell, some of the facts regarding suicide were summarized, and the question of its criminality discussed. The works of Forbes Winslow, Morrelli and O'Dea have furnished to the public a great mass of statistics regarding suicide. These have shown that suicide is an integral part of human society, and is governed by certain laws, which are quite beyond the immediate reach of individual volition. They show, for example, that suicides are most numerous between the ages of twenty-five and fifty-five; that they increase proportionately until extreme old age; that men commit suicide oftener than women, in the proportion of two or three to one; that men kill themselves later in life than women; that sorrow, reverses of fortune, physical suffering, domestic trouble, hindered passion and insanity are the more prominent causes; that suicide and insanity are both increasing, but with no definite ratio between them; that the diffusion of education increases suicide; that the number of suicides varies greatly with the race, from seven per million in Portugal, twenty-six in Italy, forty in the United States, sixty-eight in England, one hundred and ten in France, one hundred and twenty-three in Prussia, to two hundred and eighty-eight in Denmark; that the proportion in the United States is largest in California and Nevada; and finally, that in the civilized world suicide is steadily increasing.

The question of what shall be done is partly a legal, partly a moral and medical one. The advisability of enacting laws which will make suicide a crime is discussed by Mr. Bell, who is somewhat inclined to favor such a measure. To oppose successfully this increasing practice of suicide, however, something much more powerful than legal measures will be required. And the more one studies social problems, the greater appear the duties and functions of the physician toward them. Healthy minds in healthy bodies are very nearly safe from suicide. The securing for his young patients a well balanced and vigorous constitution is the work which the physician has to do in helping to relieve civilization of the vice of self-destruction.—*Med. Record.*

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The Bacillus of Whooping-Cough.

An interesting paper, pertaining to the pathology of whooping cough, was lately read before the Medical Society of London, by Mr. Dolan, F. R. S., in which views were advocated which were put forth by Poulet, in 1867; by Letzerich, in 1873; and still later by Tschamer. Mr. Dolan has repeated the experiments of these former investigators, and with successful results.

Poulet, in 1867, found certain bacteria of a peculiar kind in the sputa of patients affected with pertussis; Letzerich commenced a series of investigations a few years later. The latter found constantly present in the sputum of pertussoid patients a bacterium belonging to the genus Ustiligo, Tul.; with this micrococcus he inoculated the tracheal mucous membrane of tracheotomized rabbits and noted the results. He invariably produced a spasmodic catarrhal affection resembling whooping-cough, and he observed that the bacteria do not penetrate the epithelium, but live on the surface of the mucous membrane, to the detriment of the latter.

Tschamer, of Gratz, working in the same department of micro-pathology, has lately found, in the expectoration of pertussis, a microphyte, which he identifies with a black mould which develops on orange peel. This he thinks that he has proved by different cultures. Satisfied of the identity, he took some of the black powder which constitutes the mould of orange-peel and experimented with it on himself, inhaling the powder as deeply as he could. At first no effect was observed, but after eight days he began to have convulsive fits of coughing, and expectorated the fungus in abundance.

He explains the phenomena of whooping-cough in this way. After an incubation of seven days, these microphytes determine an irritation of the bronchi which induces catarrh and spasmodic cough; then, as the irritation increases, the expectoration becomes more abundant and eliminates the fungoid organisms.

Dolan, in repeated experiments, found that by inoculating rabbits with the sputa of whooping-cough patients, he not only induced a catarrhal spasmodic affection, but the death of the animal generally ensued. Inoculation with the blood of such patients was without effect. This certainly seems to confirm the conclusions of Letzerich, that the *materies morbi*—be it a bacillus, or be it what it may—lives on the surface of the epithelium, and does not get into the blood.

Dolan does not claim to have arrived at certain knowledge respecting the special bacteroid for which causes pertussis.

The theory, then, is a simple one, that whooping-cough, like other contagious diseases, is the product of germs, which, given off in the breath of pertussoid patients, are inhaled by persons of proper susceptibility, and set up irritation of the respiratory epithelium; the result is the vascular and nervous disturbances, and other phenomena which characterize whooping-cough. The severe constitutional disturbance which sometimes attends the disease is a secondary effect.

Mr. Dolan suggests nothing new with regard to the treatment of this affection (which must be largely directed to the palliation of symptoms); but adds that if the dependence of pertussis upon a specific virus, be the true explanation of its pathogeny, the lines on which its rational treatment and prophylaxis are to be pursued become clearer and more hopeful.—*Med. Record.*

Indications for the Use of Different Kinds of Electricity.

To recognize the differential indications is one of the most difficult things in medicine. We have, says Dr. A. D. Rockwell, in the *New York Medical Journal*, February 3, 1883, galvanic, faradic and franklinic, or static electricity, each one of which differs from the others in its therapeutical properties. In hemiplegia, where there exists an exalted electro-muscular contractility, electricity, if used at all, should be used in the form of faradization, and with an exceedingly mild and rapidly interrupted current. On the contrary, when there is a very great diminution of electro-muscular contractility, the galvanic current is indicated. When we wish to directly affect the central nervous system the constant current is alone applicable. As a general rule, it will be found that in neuralgia, where firm pressure over the affected nerves aggravates the pain, the galvanic current is indicated; while, when the opposite condition obtains, the faradic current will prove more useful. In what we call "*general debility*," the faradic current is indicated. Asthenopia, accompanied by hyperæsthesia of the retina and ciliary nerves, seems to demand the faradic current; as is also the case in diphtheritic paralysis. The so-called spinal irritation or spinal neuralgia calls exclusively for galvanism, as well as in sequelæ of cerebro-spinal meningitis; also will it oftentimes afford much relief in exophthalmic goitre.

For the restoration of the lost senses of taste and smell, galvanism succeeds when faradism fails. So also in skin diseases, where electricity is of service, the galvanic current is the one indicated. For herpes zoster, in electro-surgery and in the treatment of erectile tumors, galvanism reigns supreme. It is to be preferred as a fœticide in extra-uterine pregnancy. In sthenic chorea it is indicated, while in the asthenic form faradism must be used. The same rules will guide in amenorrhœa. The pain of muscular rheumatism will be relieved sooner by franklinization than by either of the others, and its use is more particularly indicated in pain confined to no special nerve trunks, dull and aching in character, and with no tenderness on pressure. Study first dynamic electricity, and then go to franklinism.

Failing Vital Powers.—Subcutaneous Injection of Ether.

It should be more generally known that ether injected subcutaneously has a powerful stimulant effect, and is remarkably efficacious in cases of extreme depression of the powers of life. It has long been used to a limited extent in such cases, but increasing experience has enlarged the domain of its application. In adynamic pneumonia, in fevers when failure of the vital powers is threatened, in the puerperal state, in cases of thrombosis of important vessels, the injection of ether has been lately used with singular benefit. Besides, as a stimulant in conditions of depression it has important applications as a hypnotic and local anodyne. In cerebral excitement and wakefulness, accompanied by depression of the arterial circulation, it is most useful. In the more chronic cases of superficial neuralgia, as sciatica, lumbago, intercostal pain, zoster, etc., ether injected in the neighborhood of the affected nerves often gives surprising relief.

There are contraindications to its use. It is not proper in the cases of cardiac depression due to chloroform or ether narcosis, and yet it has, in the confusion incident to such an event been freely injected on the cessation of the cardiac or respiratory movements. Under similar circumstances, alcohol has also been freely injected subcutaneously, but this practice is equally improper—and both for the obvious reasons that these are synergistic agents. Ether, subcutaneously, is also not a suitable remedy when there is arterial excitement with power.

The technical details are simple. Ether must be injected with a glass or metallic syringe. Rubber and celluloid are damaged by it. As ether dissolves the oil with which the piston is lubricated, the syringe should always be put in order after ether has been injected. It is a useful precaution, also, to see no particles of dirt or of leather are taken up with the fat. Vaseline appears to be the safest lubricant under these circumstances. From ten to sixty minims is the dose—fifteen minims being the quantity most frequently injected. Some smarting attends the operation, but if the operator is careful in withdrawing the needle to press on the orifice tightly, to prevent the ether escaping, much smarting will be thus obviated. A puffy swelling is caused by the vaporization of the ether, and this presently subsides, and only rarely is an indurated knot formed. An anæsthetic and analgesic area of limited extent surrounds the puncture.

The ether used should be of good quality—as good, indeed, as that employed for inhalation. The number of times injected will depend on the character of the case, but there appears to be no reason why it may not be injected frequently. Three or four times a day has been the rate in cases of adynamic pneumonia. When sudden, extreme depression of the heart is to be overcome, ten or twenty minims can be injected every five minutes, until some result is reached.

The systemic effect is that of a stimulant; the action of the heart is increased, the surface grows warm, and the nerve centres and the organs of the body in general functionate more quickly and powerfully. The curative results of the subcutaneous use of ether are not only different, but in kind, from the stomachal administration of the same agent. This fact must be recognized to obtain a correct notion of the utility of this practice.

Chloral in Albuminuria.

Thomas Wilson, in the *British Medical Journal*, December 23, 1882, cites several cases showing the efficacy of chloral in the above condition; the attention of the profession does not yet seem to have been generally drawn to the effect of chloral in removing albumen from the urine, and also the existing œdema.

Mrs. R——, a delicate woman, age 40, who had just passed through utero-gestation, presented albuminous urine and dropsy, orthopnœa, lips cyanosed, pulse weak, no cardiac murmur was detected. The diagnosis of dilated heart, passive congestion of kidneys, and dropsy, was made.

From the regularity with which it was noticed that the urine passed after taking chloral was clearer, of lower specific gravity, and contained less albumen than that passed at other times, it was decided to test the effect of chloral by withholding its administration altogether. No sooner was the drug stopped than all the symptoms returned. Urine passed after taking chloral was of average specific gravity of 1016, acid, with no albumen; specimens passed at other periods contained albumen and granular and hyaline tube casts.

No explanation is offered as to how the chloral was followed by such beneficial results. "Suffice it to say, that under its use, a lady so prostrated that she could not stand, with a dilated heart, albuminuria, and marked œdema of feet and legs—indications of a grave constitutional state—has simply been rescued from death."

In another case, a woman, age 68, chloral was as successful as in the former.

No apparent diuresis or diaphoresis was produced.

Nocturnal Eneuresis, Treated by Voltaic Alternatives.

Dr. Althaus writes in the *British Medical Journal:* "In June, 1882, I was consulted in the case of a boy, aged 15, who had suffered from incontinence of urine during sleep, ever since he was nine years of age. He had been treated with belladonna and other medicines without relief; and as he was about to enter a public school, where a continuance of this trouble might have been particularly annoying, the parents were very anxious that something more should be done. The boy's general health was good, but he was considered a nervous child, and highly sensitive. There were no ascarides, but he had a very long prepuce, which could only with difficulty be retracted. There was, however, no suspicion of masturbation. Treatment by electricity having been recommended, I applied the middle-sized circular cathode over the region of the bladder, and the large oblong anode (five inches by two) to the lumbar portion of the spine. The current-strength 2.50 milli-ampere for five minutes at a time. As after a few such applications no material benefit appeared to have been gained, I then added fifty voltaic alternatives produced in the metallic circuit. The night after this he was free from the usual annoyance, and the boy has made an apparent uninterrupted recovery." Dr. Althaus prefers this method of treatment to injections of nitrate of silver, as recommended by Sir Henry Thompson. He believes that belladonna is of value when eneuresis is distinctly caused by undue excitability of the bladder.

Ante-Mortem Coagula in the Right Chambers of the Heart and Pulmonary Artery.

BY JOSEPH EWART, M. D., F. R. C. P., LOND.

I NOTE from the *Lancet* of the 6th and 13th of January that Sir Joseph Fayrer has recalled the attention of the profession to a mode of death which may occur after injury and operations in hot and malarious countries, occasioned by the formation of decolorized coagula in the right auricle or ventricle of the heart, or both, and often extending, to a greater or lesser extent, along the distribution of the pulmonary artery. He, I think, appropriately associates this very mortal condition with some hitherto not fully understood lowered vitality of the blood and its containing apparatus, induced by the action of malaria upon the vaso-motor centers and the hæmopoietic organs. Under such circumstances, although no very marked or discernible deterioration of the general health may be apparent, and especially if the temperature be high and the atmosphere very humid, even slight injuries and moderately severe operations may and do, often unexpectedly, end unfavorably from this cause, but for the appearance of which the cases would, in all probability, have terminated in recovery. When there are manifest evidences of malarial poisoning, such as the facies miasmatica, anæmia, portal plethora, impeded and disturbed digestion, feebleness of the circulation with or without splenic or hepatic enlargement, etc., the danger of death proceeding immediately from the precipitation of these ante-mortem coagula is proportionately increased; and when, as is frequently the case, during the malarious season in India and other tropical or tropoidal regions, the patient is actually suffering from recurrences of periodic fever, or may have recently been so affected, the risk of a fatal issue from this among other causes is so overruling that, except on a careful calculation of the chances to save or prolong life, surgical interference had better be postponed, because experience shows that it is unjustifiable.

The group of cases referred to as occurring most frequently in hot and malarious countries is distinctly demarked, according to my experience, from the still larger class in which ante-mortem coagula in the right cavities of the heart and pulmonary artery often expedite, or constitute the immediate cause of death, in cases of surgical or puerperal septicæmia and pyæmia and other exhausting diseases. Not only is this deposition of the fibrin of the blood in the right cardiac chambers often the immediate cause of death after surgical operations and injuries in tropical and malarious climates, and altogether independent of any recognizable septicæmia or pyæmia either during life or on post-mortem examination, but I have repeatedly observed that in purely medical cases of malarial poisoning, where the patients, though not in what would be called robust health, have been able to go about their ordinary avocations, death has supervened from the obstruction caused by the more or less rapid accumulation of decolorized coagulum in the right auricle and ventricle, or in the pulmonary artery after what, at the commencement, seemed to be a trivial complaint. That such coagula may and do occur under similar bodily conditions, more frequently after operations and injuries, need therefore create no surprise.

What may be the exact nature of the changes in the blood and its conducting channels which favor and promote the precipitation of its fibrin with such fatal effect in the situation and manner described, it is, in the existing state of our knowledge, impossible to say. The fact, however, remains that in persons who have been subjected to malarial influence, and more particularly in those who have suffered from any of the types of periodic fever and sustained some damage, though not always apparent, to the vaso-motor centers, spleen, liver and blood, the possibility of death supervening from an ante mortem clot, so filling up the right cavities of the heart and the pulmonary artery as to fatally obstruct, in a preponderating majority of instances, the course of the circulation through the lungs in surgical cases in India, is a contingency which, since Sir Joseph Fayrer first directed attention to the subject in 1866, can scarcely any longer be excluded from consideration either before or after operation.

The Existing State of our Knowledge Concerning the Bacillus Malariæ.

However erroneous and ill founded were the conclusions of Dr. Salisbury, in the matter of the micro-organism he announced as the cause of malaria, his observations must be acknowledged to have become a part of the history of a subject which promises to be of vastly greater interest and importance than was for a long time anticipated. The names of other observers since Salisbury, but before the announcement in 1879 of the discovery by Klebs and Tommasi-Crudeli of a bacillus which is the cause of malarial disease, have been more or less associated with a micro-organism of similar properties, but no decided impression was made until the last-named published their results.

These observers found in the earth of malarial districts, in Italy, numerous shining oval and mobile spores, .95 of a micro-millimeter in the longer diameter. They were able to cultivate these spores in the animal body as well as in culture experiments, and the animals infected by them exhibited not only the clinical course of malarial disease as seen in man, but also the post-mortem appearances; while the bacillus was also found in the blood of such animals, taken after death. The spores develop in the animal body, as well as in culture experiments, into long threads, which are at first homogeneous, but later divide, while new spores develop in the interior of the segments. The position of the spores which are found either at the poles, or in the middle of the segment, serves as a mark of distinction between this and other pathological bacilli.

Following Klebs and Tommasi-Crudeli, Marchiafava and Cuboni, in Italy (*Archiv fur Experimentelle Pathologie*, vol. xiii.), studied the blood of men ill with malaria. In this they found spores and bacilli which they declared to be identical with those described by the former. The spores included in the white blood-corpuscles were sometimes so numerous as to seem to fill them completely. Similar studies on malarial patients by Lanzi, and again by Peroncito, led to the same conclusions.

Succeeding these, Marchand published in Virchow's *Archiv*, vol. lxxxviii., p. 104, April, 1882, some observations really made in 1876, whence he concluded that there exists in the blood, in the cold stage of intermittent fever, mobile and flexible rods presenting slight swellings at their ends, and sometimes also at the middle. These end swellings he thought also might be of the nature of spores.

More recent still are the elaborate experiments of Prof. Ceri, of Camereno, Italy, published in the *Archiv fur Experimentelle Pathologie*, vols. xv. and xvi., 1882. These consisted of culture experiments with organisms found in malarial and other soils, of experiments on animals, and culture experiments with quinine. They resulted in proving that the spores could be cultivated—Ceri applying the term *natural germs* to those found in the atmosphere and soil, and *artificial germs* to those which result from their culture; that animals could be infected by their injection into the blood, though to a less degree by the cultivated than by the natural germs, the former growing weaker in successive generations; and that the infecting properties could be retarded by the application of heat to culture fluids, and the introduction of quinine into them, certain degrees of the former, and strengths (1:800) of the latter making the culture of the spores impossible and arresting the putrid fermentation induced by them. The practical application of these facts is self-evident.

Finally, the opportunity has recently been presented to Dr. Franz Ziehl to test these results clinically (*Deutsche Medizinische Wochenschrift*, November 25, 1882) in three typical cases of malaria, in all of which the spleen was enlarged. In all three the bacilli above described were found in the blood taken from any part of the body by the prick of a needle, and examined in the fresh state, or dried in a thin layer upon a cover-glass, by simply passing the latter over a flame. These have been preserved by Dr. Ziehl for three months without undergoing any change.

The bacilli thus observed were of different lengths, but usually were from one-fourth to the entire diameter of a red corpuscle. The majority of those measured were about four micro-millimeters long and seven-tenths broad. Their ends were swollen and roundish. The ratio of the diameter of the former to the latter varied, being sometimes as one to two, sometimes more and sometimes less. They presented active flexions and movements among the red corpuscles, their motion being so slow that they often remained for half an hour in the field of view afforded by a Zeiss's objective F, and ocular I (about 410 diameters). With the same amplification there was present for the most part but a single bacillus in one field, and never more than three. In two of these cases *the use of quinine was followed by prompt relief and the disappearance of the bacilli from the blood in seven and nine days* respectively. The third case improved under the use of Fowler's solution, but, unfortunately, no further examination of the blood was made.

Subsequently, Dr. Ziehl examined the blood of twenty-five persons, healthy or ill of other conditions than malaria. In *only one of these twenty-five* did he find bacilli, and these in considerable numbers. The man was a diabetic, in whom the disease clearly succeeded upon exposure. There was no history of malaria, but Dr. Ziehl, remembering that diabetes mellitus has been occasionally traced to malaria, put his patient upon quinine. The daily excretion of sugar, which had been reduced by opium and diet to one-half the quantity noted on admission, was not further reduced, but the *bacilli disappeared from the blood in eleven days* after the treatment was instituted. It would seem, therefore, that quinine acts as a parasiticide, in some way destroying the bacillus, or, at least, interfering with its development.

Should these observations be confirmed, and it must be admitted that the whole chain of evidence is much more conclusive than that adduced in favor of a *bacillus tuberculosis*, the whole mystery of the efficacy of quinine in the treatment of malaria would be solved. It is evident, also, that the question is one of much easier solution than that of the bacillus tuberculosis, and we predict a speedy settlement of it.

With a view of completing the presentation of the matter, we must mention a microbe claimed to have been discovered in the blood of persons suffering from malarial fever by Richard (*Comptes Rendus*, vol. xciv., p. 49), a French investigator, and named by Laveran *oscillaria malariæ*. This infests the red-blood disk, and its development is said to be analogous to that of a parasite in the lentil. We condense from our contemporary, the Philadelphia *Medical Times*, the annexed description of the microbe. In the blood of malarial subjects will be found some corpuscles presenting on their periphery a minute light and perfectly round spot, but which are otherwise exactly like the normal corpuscles. In a further stage of development, the spot is larger and surrounded by a wreath of fine black nodules; around them hæmoglobin —recognized by its yellowish-green color—is deposited in the form of a ring, which diminishes as the microbe grows, until nothing is left of the cell except a marginal zone, whence the hæmoglobin is completely absent. Thus the microbe completely occupies the corpuscle, being still surrounded by the ring of black nodules. Finally, the fully developed oscillaria, which possesses several scarcely visible prolongations, perforates the membrane and escapes into the liquor sanguinis. Occasionally the prolongations, or fibers, which have a power of motion, alone perforate the membrane, and the microbe itself remains within the cell wall. Sometimes, also, the full-grown microzyme is seen to move, and its fibers oscillate rhythmically, as "thin twigs would when held by their thicker ends and rapidly shaken." This movement continues about an hour, when it ceases, and only the dead body of the parasite is left. The dead parasites lose their shape, the ring of pigment is dissolved, and the whole appears as a gray mass, including a few black nodules, which are subsequently liberated and rapidly absorbed by the leucocytes.

Such is the somewhat fanciful description by Richard of the *oscillaria malariæ*, which, he says, he was able to demonstrate in the blood of all persons suffering from malarial infection who came under his charge, while the severity of the disease was proportionate to the number of microzymes found in the blood. Kelsch and "a few other observers" are referred to as having noted these same phenomena. We have no critical comment to make upon these organisms, other than that the changes described are strikingly similar to certain ones undergone by the red-blood corpuscles in the process of cremation and drying.—*Phil. Med. News.*

Iodoform in Diphtheria.

DIPHTHERIA is a constitutional disease—this is not denied any more; but whether it is constitutional from its very beginning is not only very doubtful, but contrary to all sound reasoning. In case micrococci form really the pathogenic cause, they are first seen on the place of primary local affection, and from here they migrate and affect the blood in a similar, only more rapid, manner as the syphilitic virus. But granted that the disease is first purely local, and effective local treatment should be followed by such results as prove that the constitutional affection has been prevented by early destruction of the primary, local, exciting evil. Dr. J. Benzon, in Buccari (*Wiener Med. Wochschrift*, 35–82), and

Dr. S. Korach, in Cologne (*Deutsch Med. Wochschrift*, 36–82), both have made experiments with the local treatment of diphtheria by iodoform. The former treated one man, two women, two girls, respectively aged eighteen and twenty-two, and a four-year-old child; and notwithstanding the cases were all of grave type, under the local treatment mentioned they all ran a very favorable and rapid course. B. treated his cases as follows: He took a painter's brush, one centimeter wide, and dipped it into finely-powdered iodoform till the points were all colored yellow. He then depressed the back of the tongue and applied the iodoform with the brush to the diphtheritic membranes. This procedure was repeated by B. in the beginning of the disease every two hours, about eight times during the day and six times during the night. With the exception of ice application to the neck, this formed the whole treatment.

He made use of this treatment under and by direction of Prof. Leichtenstern, the Physician-in-Chief of the Cologne City Hospital. For nearly a year all the patients in this institution suffering from diphtheria were treated with iodoform alone; cleansing injections with unmedicated water being the only local or internal medication used besides. First, iodoform triturated with amylum, was insufflated; then the dried powder alone was put by a brush upon the membranes. Later these methods were dropped, and instead of them iodoform with collodium (1 : 10) brushed six times daily over the diphtheritic exudations, the latter having each time been previously totally dried with a linen rag. Sometimes a solution of 2.5 in 25.0 sulph-ether, and 5.0 tolu balsam, was made use of. The splendid results gained—of 213 cases only one death by laryngeal diphtheria—should induce far more extensive trials with this drug.—*Med. and Surg. Reporter.*

Ulcer of the Stomach in the Anterior Wall; Adhesions to the Abdominal Wall; Hemorrhages and Pain; Death from Morphia Habit.

EXHIBITED BY J. H. MUSSER, M. D.

I AM indebted to Dr. J. Henry Musser, of Lancaster County, for the privilege of presenting this specimen. I abstract from his notes the following history: I. J., aged seventy-one years, millwright. Fourteen years before his death he was attended by the doctor for hæmatemesis, occurring after three days of nausea. Over a pint of blood was vomited, and considerable was discharged by stool the next day. In ten days he returned to work and enjoyed good health for two years, with the exception of occasional attacks of indigestion. Then a recurrence of nausea, followed by a profuse discharge of blood, per annum, occurred. He made a full recovery, but pain after eating was now noticed. Two years subsequently he bled very much from a wound of the foot, and was much prostrated thereby. This was succeeded by severe pain after eating, with marked epigastric tenderness. The constant use of narcotics alone gave him relief. November, 1873, he was again under Dr. J. Henry Musser's care, and was treated for gastric ulcer without any avail, save when he exhibited narcotics. He resorted to the use of morphia, and continued its use during the remainder of his life. Change of diet did not influence the pain, and he partook of laborers' fare. In 1877, a small tumor to the left of and several inches above the umbilicus, hard, tender, and apparently involving the abdominal wall, was discovered. For several years he worked in a country saw-mill, using one drachm of morphia a month. Heavy lifting aggravated his pain. August, 1882, the doctor was again called in, to find the patient confined to bed, much emaciated and with complete anorexia. Death took place three weeks later, during which time he had taken no nourishment, but had used morphia freely. The habit had been acquired, and his friends thought he suffered but little pain. The only anatomical alteration noted at the autopsy was the change in the stomach. The organ was enlarged and contracted (hour-glass) towards its fundus. The anterior wall, one-third of the distance from the fundus, and at the point of constriction, was adherent to the abdominal parietes to the left of the median line, three inches above the umbilicus. Opposite to the point of adhesion in the mucous membrane there was a small ulcer two lines deep and six in diameter, with clean-cut edges, a healthy floor, and surrounded by cicatricial tissue for a radius of one inch. Undoubtedly the ulcer would have healed entirely had not the morphia habit cut off the patient.

Remarks by Dr. J. H. Musser. It is plausible to theorize that the first hemorrhage, taken with the profuse foot hemorrhage, was due to the patient having been of a hemorrhagic diathesis, and that the second gastric hemorrhage was from the same cause, and was attended by a hemorrhagic infarct with subsequent development of the ulcer. Especially is this possible, as it was only after the second hemorrhage that pain occurred, and this symptom is never absent, "except in cases which run a rapid course." [Da Costa.]

Malignant Measles.—Micrococcus in the Blood.

We abstract the following from a paper read before the College of Physicians of Philadelphia, by John M. Keating, M. D., Lecturer on Diseases of Children in the University of Pennsylvania, Visiting Obstetrician to the Philadelphia Hospital:—

The conclusions which seem warranted by the statements of this paper, and by the observations made in other cases in the hospital, are as follows:

The *micrococcus* is found in the contents of pustules and vesicles, and also in the blood taken from the measles-papule in ordinarily mild cases, without its being present in the blood taken from the punctured finger.

The moment that symptoms of malignancy—viz., dark eruptions, feebly-defined crescents, delayed and imperfect appearance of the eruption, with feeble circulation, high temperature, and pharyngeal false membrane—appeared, the examination of the blood showed *micrococci* in abundance in the field.

In cases of rapid sthenic disease with high temperature and great tissue change, the evidences of large quantities of fibrin with a tendency to coagulation are manifest. The rapid production of micrococci soon gives the mechanical impediment, and if stasis takes place from any other obstruction to the circulation, clots rapidly form.

The non-appearance of clots in malignant fevers attended with fluid blood, such as low forms of typhus, diphtheria, etc., is simply due to the fact that rapid tissue-changes have resulted in decomposition, instead of into fibrin-forming substances,—no fibrin is formed, hence no clots,—but the micrococci are present all the same. These cases are held by some to be the malignant ones, but I think the *foudroyante* character of the others, just mentioned, entitles them to be placed in the same category.

But the microccocus, if left unheeded, may attack the white corpuscle as distinctly seen under the microscope, and destroy its contents. The red cells also change in appearance, and finally probably become, to all intents and purposes, useless in the economy. When such a condition is seen by the microscope, and found extensive, a fatal prognosis can be given, despite the most active treatment.

In cases where the white blood-cells are as yet unaffected, treatment, when active, will be followed by good results, provided the other complications, as visceral inflammation, etc., are not in themselves excessive.

Alcohol (whisky in our cases) seems in some way, when given in large amounts, to check the progress of the marauders, to arrest the process of destruction, and, if needful, can be associated with quinine and iron in small repeated doses, digitalis, perhaps, and frictions, baths and poultices, etc. As we have seen, the symptoms presented are contemporary with the changes going on within the blood; they may, *in lieu* of a careful microscope examination of the blood, be taken as a gauge for treatment; knowing what can and will take place, early active treatment will give the patient some chance for the future.—*Medical Times.*

Replacing and Healing of Pieces Separated From the Human Body.

G. Halstead Boyland, M. D., M. A., of Baltimore, Md., through the *Med. Gazette*, says: The experiment of replacing in position portions of the human body hacked from it is of comparatively recent date. The results have been so far satisfactory as to demonstrate conclusively that such parts, when replaced, do heal, and not only heal rapidly, but bind themselves to the main body with surprising strength and compactness, provided always that two cardinal points be strictly observed: 1st, the piece separated must be kept warm to the normal temperature of the body; 2d, it must be replaced, whether with adhesive plaster or the suture, or both, directly the flow of blood ceases. Such cases frequently come under the observation of medical men abroad.

In a duel with schlagers (a weapon something like a rapier, but with a flatter blade, of about the same length and blunt at the end), the left ala with a part of the point of the nose of one of the principals, by a sweep of his antagonist's sword,—this piece containing skin, muscles, cartilage and mucous membrane—was cut by a clean wound, square off. It was at once put back into position, sewed on with fine sutures; over the sutures strips of adhesive plaster were applied, extending over the whole point and side of the nose on to the cheeks; in order to prevent evaporation and drying as much as possible a patch of oiled silk, and upon this cotton batting were placed, the nose being tamponed also with it at the same time. On the third day the sutures were taken out and the piece found to be quite black; the whole epidermis sloughed off as a black crust, but under it the normal rete malphigii appeared, and one small portion of the epidermis remained. After a time a layer of horny epithelium put out. At the expiration of nine months the wounded man appears with the left nasal ala slightly flattened and of normal color, the surface of the portion that had been cut off made one with the whole side of the nose, no distinct line marking a cicatrix; on some parts of it the epithelium was a little thicker than on others, making a few very small rough places. It is worthy of attention that on the third day when the sutures were removed and the epidermis had sloughed off, the part was firm in its natural position. The sloughing of the epidermis is easily accounted for by the fact that the capillaries became contracted and, so to speak, dead, on account of their extreme fineness, during even the very short time that the piece was separated from the body. We would recommend in such an emergency that the separated portion be held in the mouth, if warm water can not be procured, until the suture and all is ready—thereby the animal heat would be retained and the chances of sloughing of the epidermis materially diminished. In this operation, which is known as Reverdin's transplantation, sloughing of the epidermis is a general rule, which, nevertheless, like all others, has its exceptions. Technically, where portions of the flesh are severed from the human body, the above procedure is the best to follow; practically, it is the most successful.

In a recent number of the *Boston Medical and Surgical Journal* is recorded a case in which the hand, almost entirely severed at the wrist, hung to the forearm by a thread of skin only. Instead of amputation the hand was replaced on the above principles and kept firmly in position for a long time, finally it *reunited completely*, and the patient had considerable use of it, being able to move the fingers. As long as the merest thread connects the divided part to the main limb, so long the circulation may go on in a part of it, gradually re-establish itself throughout and thus save the limb or member, and often the life of the patient.—*Va. Med. Mo.*

SYMPTOMS OF POISONING BY IODOFORM.—In view of professional responsibility attending the use of this agent, and the frequency of its application in gynæcological practice, we deem it proper to insert the following observations resulting from the experiments of Schede at the hospital of Hamburg. The following are the toxic effects observed by Schede:

1st. Increase of temperature, which rises to 104° F. and above, without appreciable cause.

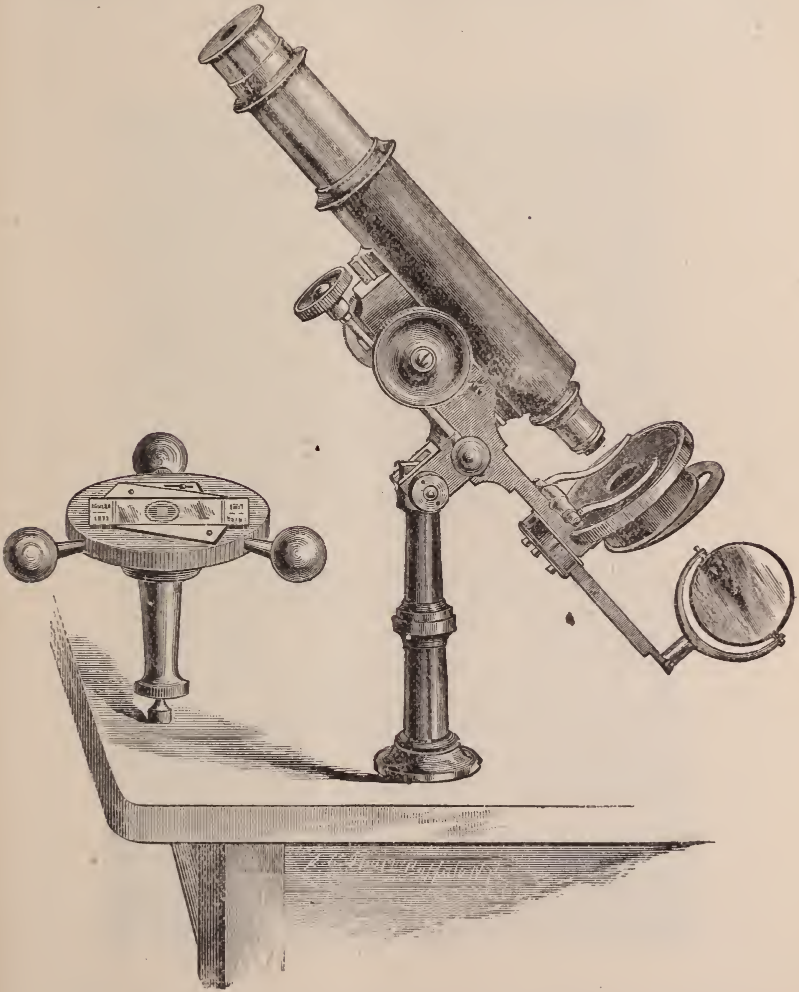
2d. Coincident with the fever a physical depression is manifested,—headache, loss of appetite, the breath bears the odor of iodoform, the pulse is frequent, small, soft, and very compressible. These symptoms cease with the cessation of employing this therapeutic agent.

3d. The frequency of the pulse may rise from 150 to 180 pulsations per minute. Added to the first symptoms of inquietude is a fever, which becomes more and more intense; and if the use of the medicine is not discontinued, death may result. A sign of the gravest portent is the appearance of symptoms of acute meningitis or of depressive phenomena analogous to melancholia.—*Obstetric Gazette.*

Microscopy.

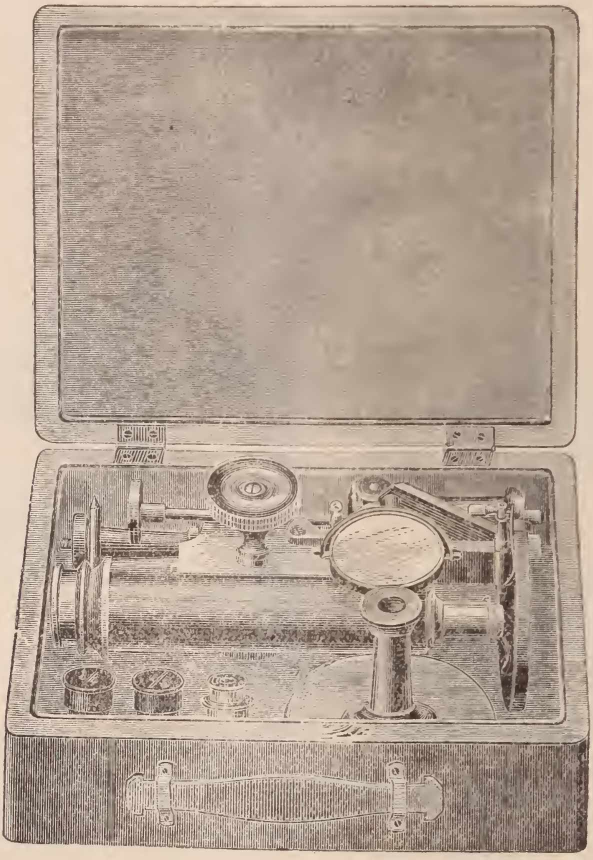
The Improved Griffith Club Microscope.

IN the November number, 1882, of the MEDICAL NEWS there was an article describing and illustrating the *Griffith Club Microscope.* By mistake two identical cuts were exhibited—both showing the microscope complete, set up for work, when there should have been only one such cut. The other cut should have represented the standard of the instrument divided midway between the body and the base, allowing the base to be placed on a spindle, always in position in the box, making a first-class turn-table, which is indispensable for the microscopist. We now supply the omission, and present the cut showing how the standard supporting the body is divided midway, between the body and the base, and the base turned upside down, and placed on a spindle, always in position in the box, making a first-class turn-table.



Those who did not see the cut of the microscope in the November issue displaying it set up for work, can easily imagine the turn-table, here shown, turned down to form the base of the microscope, its standard forming a part of the standard of the instrument. We will mention that an extra standard, with a wood screw, that may be used to fasten it securely to a work-table or other support, is provided to the body of the microscope, when the turn-table base is in use.

The November cut exhibited the attachment of an adjustable lamp-holder provided with a small lamp for illumination.



Above we exhibit a cut showing the microscope packed in its case, which is morocco covered and velvet lined. The case is 7½ inches long, 6 inches wide, and 3 inches deep, internal measurement. In ten seconds, the microscope may be taken down and packed, ready for transportation, or taken out and set up for use. Eight of the stands may be carried in a medium-sized valise.

We will mention, as before stated, that the Griffith Club is capable of doing the work of the largest stands. It is made of brass, except the face of glass belonging to the stage. It has rack and pinion for coarse adjustment—the fine adjustment being made by a worm-gear which gives a micrometer movement of nearly three inches, clamping the rack when this in use, making a safeguard for valuable slides. The stage is circular, 2½ inches in diameter, provided with a substage ring and diaphragm. The mirror bar is adjustable for length, and may be set at any angle above or below the stage. The instrument sells at the low price of $50.

Dr. Wm. B. Carpenter on Angle of Aperture.

AT the last meeting of the *American Association for the Advancement of Science* of this country, Dr. W. B. Carpenter, the distinguished Microscopist, of London, was invited to address the section of microscopy. He said he would attempt to give the results of what has been going on in Europe and America—both practical and theoretical results in the history of the microscope. He referred to the investigations of Prof. Abbe, as having led to a knowledge of the principles of microscopical optics. In the line of delicate investigation Messrs. Dallinger and Drysdale have watched the growth and development of objects so inconceivably minute as to have been heretofore regarded as invisible. They have observed flagella of a diameter one-tenth the breadth of an absolutely immeasurable line.

American microscopists, he said, are now going over the track which the English passed over twenty or twenty-five years ago, and have now abandoned. As we are going now, they went and found no valuable results to biological research. He had lived through the whole period of achromatic microscopy in England. About 1828–9, when nothing was known there of what had been done in France, or by Amici, Goring stimulated Tulley to make an achromatic lens of one-half inch focus. I saw that and was very much impressed by it. In London I bought a French combination of Chevalier, and ever since I have had a microscope—for over fifty years. The first advantage recognized in the use of achromatic lenses was that the angular aperture could be increased. With a single lens a stop or diaphragm had to be used, cutting off the marginal rays, but it was soon found that with an achromatic lens the whole face of the lens could be used, and thus more light and finer definition were obtained. At first the scales of the blue *Menelaus* were used as the finest test; then, when a quarter-inch was produced, we began to see parallel, wavy markings on the podura scales, which was then regarded as a great feat. After that came the definition of the markings, as we see them at the present time. I still hold the podura scale as the best test of an objective for biological research.

For a long time there was a rivalry between Ross, Powell & Lealand and James Smith as to which should make the widest angular apertures. As these were increased the diatom-tests came into use. Sollitt discovered some diatoms which he used as test-objects, and it was soon found that resolution depended upon angular aperture and less upon defining power. The biologists still held to the podura scale test—they said a lens should not only resolve diatoms but also define podura. The podura should not be neglected. But the manufacturers did not take the same view of the subject, and they continued to make lenses to resolve diatoms. The introduction of diatom-tests was, however, exceedingly valuable. But, besides definition, focal depth is required. I have seen it stated in some American and French publications that any penetration in a lens is a great fault. I hold that a lens which does not possess that quality is inferior.

Within the last few years we have come to understand many things. Prof. Abbe has shown that resolution is not effected in the manner heretofore supposed—that diffraction spectra take part in resolution. Now we understand why angular aperture is valuable. Prof. Abbe has come to the same conclusions I have advocated for thirty years—that it is impossible to have focal depth and very wide angular aperture. Increased angle has given great power of resolution; but what else? Nothing at all. Angle can only be obtained by lessening working distance. The result is, we see nothing but what is in the focal plane. It is well and serviceable to apply such lenses to verify a thing you have already worked out. Drs. Dallinger and Drysdale used a power of 4,000 diameters, and watched the swelling out and growth of mere unmeasurable particles. This is high biological work, and Mr. Dallinger assures me that it could not be done without penetrating power. Mr. Dallinger is perfectly sensible of the value of different kinds of objectives for purposes of verification. He has a battery of lenses of narrow and wide angles. The best lenses have as large an angle as is compatible with requisite focal depth.

One point I wish to impress upon American microscopists. It has been claimed that low powers of high angle are equal to higher powers; that a $\frac{4}{10}$ with wide angle will do everything. It will resolve tests, but its continued use will injure the eyes. I never perceived any injury to my eyes, notwithstanding that J. Edwards Smith said that my eyes were failing because I could not see the difference between wide and narrow angles. Dr. Dallinger believes if he had worked with a $\frac{1}{8}$ instead of a $\frac{1}{25}$ he would have injured his eyes. I remember the first $\frac{4}{10}$ by R. Beck. It was a good glass. To work up a $\frac{4}{10}$ to 150° destroys its value. I hear of Americans making one-inch objectives up to great angles, for which the society-screw is too small. This makes a very bad $\frac{1}{4}$ and spoils it for a one-inch. This conclusion is in entire conformity with the mathematical results of Abbe. I have only stated the conclusions we have generally come to on the other side. High-power eye-pieces are valuable for testing objectives. A good two-inch should resolve the podura scale, with sufficient magnification from the eye-piece. For £10 or £12 a good set of English objectives up to a $\frac{1}{12}$-inch can be obtained, which is about the cost of a single $\frac{4}{10}$ by an American maker.

In reply to a question of Dr. Tuttle, Dr. Carpenter stated that the $\frac{1}{25}$ used by Dr. Drysdale was a dry lens of 140°.

Prof. Burrill asked if Dr. Carpenter intended to say that a high-angle lens of high power was only good for the resolution of lines. In reply, it was stated that the flagella of *Monas termo* would probably not have been found without the wide-angle lens, but now they are known to exist, they have been seen better with a lower angle.

In illustration of his position, Dr. Carpenter also referred to some observations with low powers of wide and narrow angles used with the binocular, and instanced the structure of the diatom *Isthmia* as revealed by a Zeiss' $\frac{1}{4}$ of 40° with the binocular. In speaking of the advantages of binocular microscopes, he mentioned as a very beautiful object, a transparent injection of brain, which, when once seen with a low angle and binocular, would never be looked at in any other way.

He also mentioned a trial of two one-half inch objectives, by different makers, of 90°, which he desired to use for the study of *Polycystina*. The perspective was so greatly exaggerated that they could not be used. He procured stops which respectively reduced the angle to 60° and 40°. With the full aperture of 90° the object appeared like the small end of an egg, with the stop of 60° it appeared like the large end of an egg, with the stop of 40° the perspective was true. A one-half inch of 40° was then ordered of Powell & Lealand, who were at first unwilling to make such a low-angle glass, but finally did so, and at a soiree of the Microscopical Society it was exhibited beside the 90° lens, and the difference between them was so striking as to attract universal attention and commendation of the low-angle lens.

Gleanings.

LISTERINE.—Dr. George J. Engelmann, Professor of Obstetrics in the Post-Graduate School of the Missouri Medical College; Fellow of the American Gynecological Society, of the London Obstetric Society; Consulting Surgeon to the St. Louis Female Hospital, etc., says:

"In the sick-room, especially the lying-in chamber, listerine answers a most excellent purpose as a disinfectant, purifying the atmosphere, and removing the offensive odor without substituting one almost equally disagreeable, as is the case with many of the remedies in use. As a mouth-wash, properly diluted, it is reliable and agreeable; diluted with water or glycerine it speedily corrects certain fermentative forms of indigestion, and is of more or less service in the catarrhal conditions of all mucous membranes.

"The happy effect of listerine upon these less sensitive tissues, and the favorable reports of chemical and microscopical tests, emboldened me to try the new antiseptic in abdominal surgery, as I rather dread the effects of carbolic acid upon raw surfaces, and especially upon the peritoneum.

"In a most desperate and important ovariotomy it was used throughout, in the spray (full strength), for cleansing sponges, body, etc., and finally upon the pedicle, which, large and unwieldy as it was, was dropped; in the post-mortem examination this was found in a most excellent condition, as were all the other parts, especially the peritoneum, and the abdominal incision had united by first intention.

"In a case of Battey's operation, I used listerine with equal freedom—three sprays constantly at work—but, as is my habit, not directed over the wound. On account of incessant bleeding from the stitches, much sponging of the abdominal cavity was necessitated, and the result was as favorable as could possibly be expected. The abdominal incision united by first intention, and the patient recovered with but a very moderate peritonitis.

"I cite these cases more in detail in order that they may serve as a guide, and encourage others to try listerine more fully in abdominal surgery."

Methods of Amputation.—Prof. Stokes, in his Address on Surgery, at the meeting of the British Medical Association, reviewed the different methods employed by different surgeons. According to Von Langenbeck, Trelat, and others, the preservation of the periosteum is attended with advantage. The formation of a periosteal curtain to cover the cut surface of the bone and its medullary canal is believed to act as a shield or barrier against septic agencies, and diminish the chance of the occurrence of some of the secondary calamities, notably osteomyelitis, following amputations. The method he has in some instances adopted, and with success, is, making a somewhat quadrilateral-shaped flap at the membrane and letting it fall over the cut surface of the bone. Another method, that of M. Trelat, is to detach the membrane all round the bone for fully an inch below the point where the bone had to be divided, making, in fact, a sleeve-shaped flap. This plan must, however, materially protract the operation. This led him to consider some other comparatively recent improvements in the operation of amputation, and to bear his testimony to the great advantages to be derived from the adoption of the principle of long anterior flaps, the chief credit for establishing which belongs to the late Mr. Teale, of Leeds.

Gritti's operation undoubtedly owes its parentage to that of Carden; but, although the retaining of the patella and consequent preservation of the normal attachments of the extensors of the leg is a plan as good as it was original with Gritti, still the details of this method prevented the realization of those advantages which in principle it embodied. Hence the modification which Mr. Stokes terms "supracondyloid amputation"—an operation which, retaining the advantages of Gritti's method, eliminates its effects by lengthening the anterior flap, forming a posterior flap one-third the length of the anterior one, saturing the patella and femur together, and lastly, and most important of all, by making a high femoral section, but one not involving the idedullary canal. The special advantages that may be claimed for supracondyloid amputation are:

1. That the posterior surface of the anterior flap being covered with a natural synovial membrane, the chances of suppuration and purulent absorption are diminished.
2. Any possibility of the split patella shifting from its place on the surface of the femur is prevented by the high femoral section, and by saturing the two bones together.
3. The vessels are divided at right angles to their continuity, and not obliquely, as in other flap operations.
4. The existence of a posterior flap diminishes the chances of any wide gaping of the wound; while the anterior flap, being oval, increases the chances of the stump tapering gradually toward its extremity, and assuming the form of a rounded cone.
5. The preservation of the abnormal attachments of the extensors of the leg.

These advantages embody those of both flap and circular amputation of the thigh, and, at the same time, eliminate the defects.—*British Medical Journal*, August 12, 1882.

ANTISEPTICS IN TYPHOID.—In his service at the Hotel-Dieu, Vulpian has made some comparative observations on the utility of the various antiseptics employed in typhoid fever. Iodoform has not given any good results. This is the more remarkable, since this agent now occupies an important place as a remedy in septic processes. Salicylate of bismuth is an excellent antiseptic, but it is not readily soluble, and hence the large dose necessary to obtain any result—from two to three drachms daily—presents many inconveniences. It is found also to increase the tendency to nasal and intestinal hemorrhage. Boracic acid, carried up to the dose of three drachms daily, by regular increment of the daily dose, has not done any good. The best results have been achieved with salicylic acid. Vulpian has administered this in doses of three or four grains every half hour, until the daily quantity has reached the large proportion of three drachms. In some patients, especially in young men, he has produced some cerebral disturbance—a light delirium—in others albuminuria has appeared; but this is by no means an uncommon symptom in typhoid when left to its own course, and in some cases the albuminuria disappears when as much as 200 grains of salicylic acid are taken daily. The real cerebral effect which may, then, be referred to salicylic acid, is a slight delirium. Under the salicylic acid treatment the temperature falls in forty-eight hours, three to four degrees; and this reduction of the body-heat is more persistent than that effected by carbolic acid. At the same time there ensues a notable amelioration of the general condition of the patient. But Vulpian does not pretend that the mortality from the disease, nor its duration, is notably diminished by the modification in its symptoms thus effected by salicylic acid.

In the course of the discussion on Vulpian's observations, it appears that the central idea of the antiseptic treatment of typhoid is to act on the typhoid germs introduced into the intestinal canal from without. Vulpian gives the preference to salicylic acid because it possesses so little toxic activity *per se*. He objects to the use of the carbolate of sodium for this purpose, because, owing to its solubility, it can not be accumulated in the blood in sufficient quantity to act on the disease germs. The treatment by purgation during the period of invasion—the prodromal stage—was also considered. One of the modes of the "specific treatment" of typhoid, as pursued by our German colleagues, is the mercurial plan, which consists in the administration of purgative doses (ten grains) of calomel during the first week. Several doses of this kind must act in three ways: sufficient bichloride is produced to act on the typhoid germs as a poison; the germs are removed by a purgative action; the temperature is lowered by the combined result of these actions. The range of temperature has a certain relation to the number and activity of the germs present in the blood. Hence their destruction at an early period becomes very desirable. —*Medical News*, October 14, 1882.

OPHTHALMIC APHORISMS.—Dr. J. J. Chisholm, of Baltimore, gives the following valuable aphorisms in a report presented to the Maryland State Medical Society at its last session:

1st.—*Do not blister.* In forty-nine applications out of fifty, as I find it used by physicians at large, it is an additional and useless torture to the eye disease from which the patient is already suffering.

2d.—*Do not use nitrate of silver.* As constantly prescribed by general practitioners, it is not beneficial in one case out of one hundred, and therefore is a very painful infliction to the ninety-nine who would have been so very much better off without it.

3d.—*Do not prescribe sugar of lead.* In every case zinc, tannin or alum is better, and then there is no fear of having insoluble deposits incorporating themselves with the exposed surface of corneal ulcers.

4th.—*Always use weak solutions of the mineral and vegetable astringents* in the treatment of eye inflammations which attack the mucous surfaces, and restrict their application to conjunctival diseases exclusively. One grain of alum, sulphate or chloride of zinc, sulphate of copper or nitrate of silver, in an ounce of water, will in the majority of cases of conjunctival diseases, do much more good and give much less uneasiness than the very painful five and ten grain solutions which are so often injuriously prescribed by physicians.

5th.—*Solution of the sulphate of atropia*, from one to four grains to the ounce of rose water, is an essential eye-drop in the treatment of acute iritis, to break up newly formed adhesions. One drop of the atropia solution in an inflamed eye is a most valuable means of establishing the diagnosis whether iritic complications exist or not, and should be used in most cases of eye inflammation to find out whether there are any adhesions of the pupil to the lens.

6th.—*Eserine in solution of one grain to the ounce of water* is the remedy for purely corneal lesions.

7th.—When physicians are in doubt as to the character of an eye disease, they should seek a consultation from specialists who are more familiar with eye diseases than general practitioners can possibly be. Such timely aid often saves the patient a lifetime of trouble.

If physicians would commit to memory and keep at their finger ends, and ready for use, these simple aphorisms, the amount of mental and bodily suffering which they will prevent in their eye patients is beyond calculation. While all good rules have necessarily many exceptions, they may safely follow their simple guidance.—*Ohio Medical Journal.*

PERFORATING DUODENAL ULCER.—John P., aged thirty-four, and a well-built, active, muscular man, apparently in robust health, consulted me in November, 1881, having been suddenly seized with agonizing pain in the right hypochondriac region, extending downward and to the back. The pulse was slow, of good strength; the skin cool, and in twelve hours he was free from pain. Morphia was injected subcutaneously. During the succeeding six months he had occasional attacks of abdominal pain and sickness, not, however, of such severity as to induce him to seek medical aid or to interfere with his work. While in the act of stretching himself to hang a picture, on the evening of April 23, 1881, about an hour after a meal of tea and bread and butter, he was again suddenly seized with the same pain as before, and when seen was in a chair, moaning, with the knees drawn up, pale, with a cool skin and a slow but not weak pulse. Bowels had acted during the day. Morphia was again injected, with but little relief, and by the following evening he was in a state of profound collapse, and died in twenty-four hours after the seizure.

The abdomen was examined twenty-four hours after death. Rigor mortis complete, with great lividity of surface and rapid decomposition. On opening the abdomen, fetid gas and about two quarts of turbid brown fluid, with yellow floating shreds, escaped, and on raising the transverse colon a round perforation, half an inch in diameter, was seen in the duodenum, which was perfectly free from adhesions. The omentum had limited to some extent the spread of the peritonitis, but there was much soft yellow lymph on the liver and the adjacent bowel. On removing the duodenum, the opening was seen to have a thick rounded margin, firm to the touch, surrounded by folds of mucous membrane radiating from it.

Three years ago George S., aged thirty-six years, while jumping on the hind step of a high gig, was seized with extreme pain in the abdomen, and faintness. When seen by me he presented the phenomenon of collapse in the most intense degree, and for about six hours showed no sign of rallying. Gradually the pulse became perceptible, and warmth returned, but the abdominal pain was extreme, and for three days he lay in a dangerous state. In eight days he had recovered sufficiently to be removed to his home, a distance of some miles, and when heard of six months ago he was alive and well. Previously for some months he had occasional attacks of abdominal pain, which he attributed to "cramp."—*W. Henderson, M. B., Glasg., in The Lancet.*

Influence of Occupation on Syphilis.—A paper recently read before the National Society of Medicines, of Lyons, by Dr. Guinard, on this subject, excited considerable discussion, from syphilographers, and others, at the time. From a review of the question discussed in it, as to the hygiene of glass-blowers and the prophylaxis of syphilis, in the *Archives of Dermatology*, we learn that Rive-de-Gier, which is to-day, from the industrial point of view, the first and principal center of the manufacture of glass in France, was twenty years ago, from the medical point of view, the first and principal center of observation of syphilis transmitted by glass-blowing. It was upon a workman in one of its factories that M. Rollet first recognized and demonstrated, in 1850, the contagiousness of secondary lesions. That abundant opportunity for direct syphilitic infection is furnished by glass-blowing, is shown by the statement that three workmen pass the same tube from mouth to mouth 75 to 85 times hourly. Three epidemics produced in this manner are described in detail. In order to guard against their recurrence, bi-mensual inspections of all the workmen were instituted in some establishments, no one being employed without presenting a certificate of health from the physician in charge. These examinations, although successful in preventing further symptoms, being objected to by some of the workmen, the attempt was made to introduce the use of movable mouthpieces for the tubes, one being furnished each workman. Although this device seemed to answer the purpose at first, it was soon discovered that the men would not use them, and the occurrence of several new cases of buccal chancres caused the bi-monthly inspections to be resumed.—*The College and Clinical Record.*

STRANGULATED HERNIA, COMPLICATED BY DISEASE OF THE SPERMATIC CORD.—Dr. John L. Atlee reports in the *American Journal of the Medical Sciences* for January, 1883, a case of strangulated hernia, in which the scrotum was enormously enlarged; at the bottom it was twelve inches in circumference, and came down nearly half way to the left knee. The surface of the scrotum was marked by numerous large and very dark veins. The bulging at the external ring was as thick as the wrist, and no impression was made by the taxis. When the sac was opened the first thing that presented was a large mass of omentum running down to near the bottom of the scrotum. This was raised up, and a knuckle of intestine, ilium, about five inches in length, firmly strangulated and of a dark mahogany color, but with no ash-colored spots. After the reduction of the hernia from the ring proceeded a cord as thick as a lead pencil for about three inches. It then became much thicker and highly vascular, resembling the omentum, which he had already removed. There was a large mass lying in the very bottom of the scrotum, in some places nearly as thick as a bantam egg, with many smaller lumps extending down the mass, and fringed with highly vascular membranes; when drawn out it measured eighteen inches in length, and weighed twelve ounces. As it approached the testicle it became as small as at its origin in the ring. He found the testicle wasted and very soft and firmly attached to the bottom of the cavity. The conclusion was drawn that it was an immense hypertrophy of the cord and epididymis, and it was concluded to remove it, which he did after tying at the ring above and at the testicle below. After plugging up the ring with the stump of the omentum and cleansing the empty sac, he closed the external wound and applied a bandage. The patient bore the operation well.

THE ABSORPTION OF NUTRIENT ENEMATA.—Dr. Charles L. Dana, of New York, communicates to the *Medical Record* the results of a series of experiments upon dogs, made to determine the physiological process by which nutrient enemata are absorbed. He finds that large injections forcibly administered *may* cause a "retrostasis," which will carry the material by the ileo-cæcal valve, and even into the stomach; moreover, that in dogs, ordinary nutrient injections of two, three, or four ounces pass back some distance, and may even reach the ileo-cæcal valve, but do not go farther, the injection being carried back much better when the lower bowel is empty or comparatively so. He believes that the clinical cases are exceptional in which retroperistalsis occurs, and concludes that the process is usually effected by local absorption. The fact that the colon is very vascular and has a large supply of lymphatics confirms the view that it is not an excreting organ, but its function in man is that of absorbing; in solipedes it has a powerful digestive action. He observes that albuminous food, when injected, speedily undergoes chemical changes and decomposition. In some of the early stages of this process it is quite possible that the changed albumen passes into the surrounding vessels. Normal peptic digestion is only a decomposition with many stages in it, during some of which the albuminous matter is absorbed. It is not necessary that albumens be made perfect peptones before they can diffuse into the blood-vessels and lymphatics. Fats can not be absorbed to any great extent in the colon or rectum. It is not necessary to inquire whether starches can be changed to glucose, since it is always possible to add some form of animal sugar to the enema if that be thought necessary. Milk and beef-tea are regarded as very nearly as effective as the expensive peptonized preparations for use in nutrient enemata, the value of which may be regarded as established both by physiological experiment and abundant clinical experience.

The Histogenesis of Carcinoma.—Dr. Carl Hempel Reed, in the *Philadelphia Medical Times*, reports the results of some studies in the Pathological Laboratory of the University of Pennsylvania, upon the histogenesis of carcinoma. He concludes that cancers have an exclusively epithelial origin, and summarizes the essential points in favor of this view as follows: 1. Primary true cancers are found only in locations where there is pre-existing epithelium. 2. No cancer has been proved beyond doubt to have originated heterotopically. 3. The cicatrization of cancers explains the young connective-tissue infiltration. 4. Young connective-tissue cells or white blood corpuscles never being seen inside the alveoli. 5. The independence of the epithelial cancer-cylinders from the connective tissue. 6. The intactness of endothelial ensheathments of connective-tissue trabeculæ forming the alveoli. 7. The mode of development and concentric growth of secondary cancers. 8. The proliferating power of epithelium normally is greater than that of any other tissue. 9. The results of my experiments showing that the epithelial covering in the healing of ulcers is exclusively derived from the epithelium of the border, a most conclusive proof of this being the gradual advancement of the pigment from the borders of the healing ulcer; this fact, by analogy, forming a strong testimony in favor of the epithelial origin of cancer. 10. The transformation of connective-tissue cells into epithelial cells, in extra-uterine life, does not occur, either physiologically or pathologically.

Allochiria.—A peculiar sensory disorder, in which peripheral irritations upon the surface of the body or extremities are felt as if coming from the opposite side,—that is, a sensory impression is referred not to its proper locality, but to a corresponding one on the other half of the body,—was termed by Obersteiner, of Vienna, "allochiria." It has been noticed most frequently in cases of locomotor ataxia, though not restricted to cases of spinal sclerosis, and has been found to be associated with disease, inflammatory in character of the posterior horns of gray matter. Anæsthesia is not a necessary concomitant of allochiria; but where there is a lesion of both posterior horns at a different level, there may be anæsthesia upon one side and allochiria upon the other. The character and symptoms of this peculiar nerve-disorder have recently been considered in a paper read before the New York Neurological Society by Dr. Hammond, in which the symptoms, morbid anatomy, and mode of production of the disease are explained by references to the physiology of the gray matter of the cord and of the mode of perception of sensory impressions.—*New York Medical Journal.*

SIMPLE METHOD OF COUNTING RAPID PULSE.—Dr. A. W. Abbott, of Minneapolis, advises in the *New York Medical Record* the following simple method of counting a pulse too rapid to be taken in the ordinary way: "During a definite part of a minute, one-fourth usually, with a common lead pencil dots are made upon a sheet of paper *synchronous with the heart beats*, as heard over the cardiac region. The dots are then counted, and the number calculated for the whole minute."

Book Notices.

A DICTIONARY OF MEDICINE, INCLUDING GENERAL PATHOLOGY, GENERAL THERAPEUTICS, HYGIENE, AND THE DISEASES PECULIAR TO WOMEN AND CHILDREN. By Various Writers. Edited by Richard Quain, M. D., F. R. S., Fellow and Late Senior Censor of the Royal College of Physicians, Member of the Senate of the University of London, etc. Large octavo, double columns. Pp. 1816. New York: D. Appleton & Co. 1883.

It is with great pleasure, indeed, that we announce the publication in this country, by the Appletons, of this most superb work. Of all the medical works which have been, and which will be, published this year, the most conspicuous one as embodying learning and research—the compilation into one great volume, as it were, of the whole science and and art of medicine—is the "Dictionary of Medicine" of Dr. Quain. Ziemen's "Practice of Medicine" and Reynolds' "System of Medicine" are distinguished works, forming compilations, in the single department of practice, of the labors of many very eminent physicians, each one in his contributions presenting the results of his own observations and experiences, as well as those of the investigations of others. But in the dictionary of Dr. Quain there is embraced not merely the principles and practice of medicine in the contributions by the various writers of eminence, but general pathology, general therapeutics, hygiene, diseases of women and children, etc. In these departments, every subject pertaining to them is mentioned and described, and scientific terms and technical names defined and explained.

Although the work is termed a dictionary, and is one so far as taking up the subjects in alphabetical order and defining them, yet it embraces far more than the definition and etymology of terms at which a dictionary stops. It is an encyclopedia as well as dictionary; and, consequently, is of far more value than a dictionary possibly can be. Each disease is treated at length—its history, etiology, anatomical characters, pathology and treatment are fully discussed. It is as full, in this respect, as a treatise on systematic medicine, in which the articles constitute monographs in themselves. In the articles pertaining to general therapeutics, there are considered the several cases of remedies—medicinal and otherwise—which are employed in treatment, the modes and actions of such remedies, and their methods of use. In considering the subject of hygiene under the topics which come in regular alphabetical order, the causes of disease are treated, its prevention, the agencies and laws affecting public health, the construction and management of hospitals, schools and public institutions, and nursing the sick.

The contributors to this great work number one hundred and fifty-six, their various articles having been arranged and edited by Dr. Richard Quain, who is also a large contributor. Each article has the name of its author appended to it. From the many very eminent contributors, known wherever medicine is recognized as a science, we will mention only a few, as follows: Wm. Aitken, Geo. Balfour, Robert Barnes, Charlton H. Bastian, J. Henry Bennett, Carl Rinz, of Berlin; G. F. Blandford, J. Syer Bristowe, W. H. Broadbent, C. E. Brown-Sequard, T. Lander Brunton, W. B. Carpenter, W. B. Dalby, J. Matthews Duncan, Robert Farquharson, Berkeley Hill, Sir Wm. Jenner, Chas. Macnamara, F. W. Pavy, W. S. Playfair, William and Frederick T. Roberts, T. Grainger Stewart, Sir Henry Thompson, J. Batty Tuke, Sir Erasmus Wilson. There are many others of the list as eminent as these whose names we have copied. In fact, every one of the contributors is eminent in the department of medicine to which he has contributed.

Although the work has occupied several years in preparation, yet every article has been revised, so as to embody the latest information on the subject of which it treats. Such a work as this one, composed of so many exhaustive treatises, as well as a vast amount of other matter belonging to a medical dictionary, will aid much indeed by its embodying the results of all the most recent investigations in every department of medicine, in supplementing or bringing up abreast of present knowledge the libraries of such physicians as have been allowed to become antiquated either from negligence or force of circumstances.

We could say much more in commendation of the work, but we have not the space. We can assure those who purchase it, that, in doing so, they will be placing upon their shelves a complete modern medical library, which will afford them satisfactory information upon any subject in medicine, important or unimportant, in regard to which they may consult it. In the way of explanation to those inquiring how such a work can be contained in a single volume, we will state that it has nearly 1,900 pages almost quarto size, two columns to the page, and is printed with nonpareil type. We have not attempted to make the estimate with paper and pencil, but we feel sure that the amount of reading-matter in this one volume is not far short of that contained in the ten volumes of "Chambers' Encyclopedia," which professes to exhibit a fair outline of the history of the world —its geography, biography, art, science, literature, etc. Notwithstanding the small type, it is read with ease and comfort. The thin but excellent paper prevents the volume from being bulky.

The work is sold only by subscription. We predict an immense sale.

A Practical Treatise on Diseases of the Skin: for the Use of Students and Practitioners. By James Nevius Hyde, A.M., M.D., Professor of Skin and Venereal Diseases, Rush Medical College, Chicago, etc. 8vo. Pp. 572. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: R. Clarke & Co. 1883. Price, $4.25.

Although very many physicians are disposed to treat diseases of the skin as of little importance, and, consequently, to give them but little attention, yet they really possess a very considerable degree of gravity. There is certainly no class of diseases that affords a better opportunity for the display of skill in treatment. There are none so difficult to differentiate, and to diagnose correctly. The pathology of many of them is exceedingly obscure. Painful, then, as many of them are, or exceedingly annoying, and undermining to the general health oftentimes, it is not surprising that dermatology is assuming more and more importance. It is becoming to be more generally understood that something more is requisite to successfully treat the various disorders of the skin than the prescribing of some lotion or other, or an ointment.

The skin is not merely a covering of the body for the protection of the parts embraced in it, but it is also an important organ of the body, performing functions scarcely second to any of the other great organs. Millions of glands are contained in it, and form part of it, which act as emunctories, separating from the blood gaseous, liquid, and solid effete materials. And, besides these, are lymphatics, great networks of capillaries, nervous papillæ, etc.

There are not a few of very excellent works on diseases of the skin already before the profession; but as constant research is increasing our knowledge of physiology, pathology, therapeutics, and adding to the number of efficient remedies, it becomes necessary that, from time to time, some one should present in a comprehensive form the results of the latest observations and experiences. The revisions of old editions is not sufficient to keep the profession posted in the progress that is being made in any of the departments of medicine. New writers and new books will always be in demand, in order that the literature of a subject may be abreast of the times in what it teaches. And this is not less true of dermatology, than of other departments of medicine. In fact, in consequence of its being, at this time, more cultivated than ever before, it will hold good more with it than with the others.

The works of Wilson, Tilbury Fox, Neumann, etc., are excellent works on diseases of the skin, and will rank as authorities for a long time; but the work of Prof. Hyde will be awarded a high position none the less. The student of medicine will find it peculiarly adapted to his wants. Notwithstanding the extent of the subject to which it is devoted, yet it is limited to a single and not very large volume, without omitting a proper discussion of the topics—abbreviating only in details. The conciseness of the volume, and setting forth only what can be held as facts, will also make it acceptable to general practitioners who have not the time to give attention to discussions on unsettled points, however interesting such discussions might be.

A Treatise on Fractures. By Lewis A. Stimson, B. A., M. D., Professor of Surgical Pathology in the University of the City of New York. With 360 Illustrations on Wood. 8vo. Pp. 598. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: R. Clarke & Co. 1883. Price, $5.75.

Dr. Stimson undoubtedly means business by his work, for he opens up with the first chapter without any preface or introduction. We do not recollect of ever before having met with a book that had not a single prefatory line. But why occupy several pages with a preface, and tax the time of the reader in reading it? If an individual has a substantial reason in putting forth a book, there is no occasion for his apologizing for doing so; and as regards the merits of the work, it is best for the reader to judge of them himself. If there are merits, they will be recognized and awarded, whether the author sets them forth or not.

An examination of the work shows that the subject of fractures is treated in a very intelligent manner. The student and physician will find satisfactory information on all the points of this branch of surgery. The first chapter is devoted to "Generalities," as definitions, influence of age, sex, etc. In the second chapter are considered the varieties of fractures, complete, incomplete, multiple, compound, and other varieties. Chapter third treats of displacements, and the fourth is devoted to the etiology of fractures. The first eleven chapters are taken up with the consideration of subjects that pertain more or less generally to all fractures. In the subsequent chapters particular fractures are described, and the various methods of treating them set forth.

The work will be a valuable addition to the literature of the department of surgery of which it treats. The author has labored to make it a plain, practical, scientific exposition of fractures, and has succeeded. He no doubt considered he had a mite to contribute; and having added to it the results of the recent investigations of contemporary surgeons, he has made a valuable work.

Editorial.

CODE OF ETHICS OF THE NEW YORK STATE MEDICAL SOCIETY.—Our readers have been informed of the renouncing of the Code of Ethics of the American Medical Association by the New York State Medical Society, and of their adoption of a code of their own, in which liberty was granted of consulting with homeopathists, and with all holding diplomas of legally-chartered schools of medicine. It is also known that the delegates of the New York State Medical Society were refused recognition by the American Medical Association at its late meeting at St. Paul.

It was generally believed that the New York State Society, at its next meeting, would reconsider its action in adopting a new code, and re-enact the old one of the American Medical Association, which, by its general adoption, has become the code of the regular profession of this country. It was not thought that the New York State Society would be willing to be cut off by the profession of all the other States; and, consequently, it was presumed that the local societies, animated by a feeling of rebellion against the action of last year, would send delegates to the meeting of this year instructed to express their emphatic opposition to any change of the old order of things. It was broadly stated that the new code had been adopted by springing it upon the society unawares; that the county organizations had not been made aware that it was contemplated, and, therefore, had not had an opportunity of instructing their delegates to oppose it. Besides, the action in regard to it was not taken up until near the time of adjournment, when many of the leading members, who would likely have opposed it, had gone home.

Greatly to the surprise of all, the New York State Medical Society, at its recent meeting, held in Albany, has confirmed its action of last year with regard to the rejection of the Code of Ethics of the American Medical Association, and by a decisive vote has refused to change the "Provisional Code" which it then adopted. This code is called a provisional code, we understand, because it is intended at the next meeting to substitute simply the formula that the only offenses for which a member can be disciplined shall be comprised under the heading of, "Conduct unbecoming a physician and a gentleman." The Boston *Medical and Surgical Journal* remarks that, "inasmuch as the law does not require a physician to be a gentleman, and since the abolition of the National Code of Ethics was chiefly urged because it established a standard above that of the law, and was therefore illegal, we do not see how the authors of this simplified code can consistently support even this; it would seem that there can be no safe ground for them to occupy short of the abolition of all codes, in cases of disagreement invoking the protection of the courts."

The Boston *Medical and Surgical Journal* states that the majority of the medical profession in the State of New York, and more than two-thirds of the county organizations, have expressed their disapproval of the action of the State Medical Society upon the Code of 1882. If this is so, we do not see how it is that the profession of the State and county societies have not made themselves felt and brought the State Society back into the ways of rectitude. They certainly possess but little force of character if they are permitting a minority to have their own way. It says that those most active in the movement which has crippled the usefulness, and threatens the existence, of the association, are almost entirely from the eastern part of the State; and the county society most distinguished in its advocacy of the measures adopted was the Society of the city of New York. This may all be true, but certainly it speaks badly of the profession of the other counties than that of New York. We have always understood that there were in the State of New York very many distinguished medical gentlemen, eminent for their ability and high standing, outside of the city of New York, and we can not understand how any most important action can be taken in the State Society and maintained in opposition to their will. The profession of Albany, Buffalo, Rochester, etc., are either heartily in favor of the "Provisional Code," or are so little attached to the old one that they do not care about contending for its maintenance. In a previous number of the NEWS, we intimated that there are not a few physicians who are more inclined to recognize intelligent, cultivated so-called homeopathists, who regarded with contempt the dogma of "*similia similibus curantur*," and do not assent to the doctrine of infinitesimal doses, than *regular* ignorant charlatans; and we can not help believing that very many physicians in New York State, outside of the city of New York, as well as those in it, are of that class. If it were not so, most assuredly the code adopted by the New York State Society in 1882 would not have been confirmed in 1883.

The *Journal* pronounces it a fallacy that the law makes the physician. May be it is a fallacy; but if the law does not make the physician, who or what does? It has always been recognized that colleges obtain their power from the law to confer the degree of M. D., and that when an individual has once been pronounced a physician, he always continues to hold the honors, privileges, etc., whether he practices medicine or not; in other words, he is always afterwards a doctor. But it does not follow that because the law makes the physician, that the physician is an officer of the law. He is treated by the law as a private citizen, so far as his individual rights are concerned. But the law recognizes him to be a physician, and the courts call upon him to testify on questions pertaining to medico-legal subjects.

It is charged that the specialists of New York City are the prime movers in the adoption of the new code by the State Society. If such be the fact, they certainly possess an extraordinary amount of influence, far more so than the specialists of any other city of this country.

HEALTH OFFICERS.—The city authorities of Cincinnati seem to recognize the fact that a Health Officer should be a physician, but they seem entirely, at the present time, to ignore the fact that a physician, to fill the office, should have some qualifications. It has been a disgrace to the city the sort of incumbents that have been filling the position for the last three or four years.

The government of England requires that all health officers shall be medical men, who, by education and training, are especially fitted for the work of investigating the causes and prevention of diseases, the management of epidemics, supervision of sanitary inspections, and the intelligent administration of the laws of health. What does the present Health Officer of this city, and the previous one, know about these subjects? They are about as proficient in them as they are in Latin or Greek, and no one who knows them would hardly charge them with knowing that there ever had been such languages. They were elected to their positions by a foully corrupt Board, which has been notorious for its accepting bribes, carousing in bawdy houses, and of other vile conduct. One of the members, not very long ago, unblushingly confessed to a reporter that, while in a bawdy house with some of his *confreres*, he borrowed money to purchase wine with which to treat the female inmates.

The present Board of Health has seemingly become so rotten that it is no longer able to hold meetings. The Mayor, who is *ex-officio* the President, long ago ceased to attend any meetings, a couple have resigned, all of the others except one have placed their resignations on file and no longer attend, because they anticipate being put out of office by the legislature's abolishing the Board. No quorum, however, can be had to accept the resignations.

This is the condition of the Health Department of the Queen City of the West. A solitary member of the Board takes his seat weekly—the member who, without a blush, as if it were a matter to boast of, confessed to visiting bawdy houses. He sits his hour out, passing jokes, we presume, with his brother, the Health Officer, and then retires. When there will be a change we can not say.

THE HOUNSLOW SUICIDE.—We copy the following account of the Hounslow affair from the *Boston Medical and Surgical Journal.* Although it is very lengthy, and crowds out some other matter which we had prepared, yet as the affair has excited very great interest in England, more than any other event of a personal nature for a great many years, we have no doubt our readers will be interested in reading it.

> Dr. Edwardes, a young man, aged thirty-two, who had achieved a good name in London. as a medical assistant. entered into practice about fourteen months ago in Hounslow, a suburb of London, whose name suggests Dick Turpin and such folk. where he had purchased for £1800 a half-interest in the business of Dr. Whitmarsh, an established practitioner. Dr. Edwardes was a married man, of good presence and affable manners, and soon made a favorable impression in the town. He found, however, that the pecuniary returns which had been promised him were not forthcoming, and, while doing most of the hard work, he was making but a bare living, while his partner, with an office practice, was taking the greater part of the profits. Dr. Edwardes had repeatedly expressed to his wife that he was not being properly treated, and had regretted that they had not chosen some other place to begin life, but neither of them had made any public complaints. Things went on thus till some two months ago, when the doctor was called to visit a pretty, young, married woman, who was suffering from some thoracic affection, for which he examined her with the stethoscope. Directly after she told one of her neighbors that the doctor had taken liberties with her, and made improper proposals. Of course, the story once started spread like a pestilence, reaching the ears of the victim last. He met it with a prompt denial. Mrs. Whitmarsh, with exemplary delicacy, brought the story to Mrs. Edwardes, who showed her the door. Dr. Whitmarsh had meantime privately visited the patient, and had spoken very disparagingly of his partner. He, however, visited her with Edwardes, at the latter's request, on which occasion the woman gave a written retraction of her charges.

In spite of this Whitmarsh advised Edwardes to leave the town, which he, of course, refused to do. New stories were started, which Edwardes was taking legal measures to punish, when the woman brought a counter-suit. At this point Edwardes found that his partner not only refused to stand by him, but actually proposed to enter the witness-box against him unless he would give up his practice and go away. An agent of Whitmarsh came to Edwardes, overwhelmed as the latter was by his misfortunes, to demand an immediate answer as to whether he would accept a small sum and retire from the field. Edwardes promised his answer that night. It was given by prussic acid. The unfortunate man was found dead, leaving a letter in which he gave the story of his wrongs, and ended with the words, "*May God curse Michael Whitmarsh.*"

Then the fickle public, who had merely been indulging in the harmless amusement of talking scandal, found out what they had been doing, and their attempt at reparation took a form which our English friends would probably say was much more likely to occur in an American mining-camp than in a quiet English village. The mob stoned the house of Whitmarsh and leveled his surgery to the ground. He and his family fled the town. The body of the unfortunate Edwardes was buried with honors that rarely have been given to a confessed suicide. The coroner's inquest, which had been made the occasion of a searching investigation into the circumstances of the affair, resulted in a verdict that Dr. Edwardes had died from prussic acid, administered by his own hand, during temporary insanity; and to this the jury added a very strong expression of their opinion that he had been driven to this act "by the pressure brought to bear by his partner, Dr. Whitmarsh, using the false charge of Mrs. Bignell as a means to drive him to a dishonorable dissolution of partnership." The town's people paid a marked tribute of respect to the young widow, who, it should be said, throughout the sad affair, has maintained her husband's cause with the most steadfast loyalty. On the other hand, Whitmarsh and the woman who made the charges, required the utmost exertions of the constabulary for their safe conduct to and from the court, where virtually unchecked displays of opinion occurred over and over again. In which particular again it would almost seem as if there were a good deal of human nature still left in England, and as if the machinery of legal processes did not always work so smoothly as our transatlantic contemporaries would have had us believe during the Guiteau trial. The principal witness adhered to the charge which she made, but on cross-examination allowed that she would not have done anything about it if it had not been for the instigation of Dr. Whitmarsh, who brought the lawyer to her. She also admitted having brought a similar charge against another man two years before, and acknowledged certain facts of her previous history bearing unfavorably on her moral character. A neighbor testified that on the day of the visit the woman told her with much pride and exultation that Dr. Edwardes had kissed her.

In a word, as far as the evidence went, it appears that whether or not Edwardes was indiscreet in his conduct—and the circumstances are entirely against his having been so—the accuser was at the best but a reckless talebearer, one who "casteth fire-brands, arrows and death, and saith, Am I not in sport?" and in all probability was either a blackmailer, or a tool in the hands of Whitmarsh. That gentleman, for his part, appears in the unenviable light of one who, having received a large sum of money, not only did not deliver the equivalent, but sought to get rid of his dupe in order to have a clear field for repeating the transaction with another victim.

The ruin of this young man is the result of two causes: one, the coldness or rapacity of a fellow-practitioner; the other. the scandal of a woman's tongue. On the first point we have little to say at the present time. For the credit of the profession we prefer to believe that such incidents are rare.

There should be that *esprit de corps*, that practical exemplification of the golden rule, which, the moment a man is calumniously assailed, should bring to his aid the moral support of his professional neighbors. None of us knows when his own turn will come to be struck by the shafts of malice. One of the amenities of a profession that has many hardships is the promptness and heartiness with which neighborly aid and comfort are extended to those who, without intentional ill-doing, have fallen into trouble.

The other lesson to be drawn from this event is the need of a careful self-protection against the whims of the hysterical and the machinations of the vicious among our female patients.

The only adequate protection is in the presence of a third person in all professional visits, especially when anything of a physical examination is to be made.

STRAW IN THE STREET CARS.—Notwithstanding the comparatively recent introduction of street passenger cars, there remain certain usages connected with their service which are relics of the barbarous past, and which are totally void of excuse. Notable among these barbarisms is the condition in which our horse-cars are kept during the winter months.

While cars transported by steam are models of comfort, and even luxury, the comfort and health of those multitudes who are compelled to use the street cars of our large cities are treated with absolute contempt. Nay, there would seem to be a reckless disregard of the comfort and health of those who patronize these vehicles.

Let any one fresh from reading a description of Koch's investigations on the "bacillus tuberculosis," enter a street car on a wet, muddy, winter afternoon. Let him glance at the damp, soggy straw or hay which covers the floor, and notice the frequent expectoration in the material thus carefully provided for the cultivation of germs, and we defy him to avoid the ardent hope that Koch is in error, and his bacillus imaginary. No wonder that so many prefer to take their chances of pneumonia and pickpockets upon the rear platform.

Should the day be cold, and the door and windows be carefully closed in consequence, the street-car traveler may reflect upon the scars adorning his neighbor's face, and amuse himself by estimating how many as yet undetached variolous crusts still adhere to his person; or he may pursue his reflections so far as to speculate how many may become detached and find a resting-place in the luxurious hay carpeting at his feet.

We need not follow the investigator into his speculations concerning the whole list of contagious diseases. Of one thing we may rest assured, that he will arrive at the conclusion that the ingenuity of man has not devised any one thing better fitted to both concentrate and disseminate morbific poisons than the average horse-car in winter. Such a state of things is a disgrace to our civilization, and results from an utter absence of progressive spirit on the part of the managers of these corporations. It comes from simply allowing things to remain as they were in the beginning. In this case there is every reason why they should not so continue, and there is no excuse for street cars not being both properly warmed and ventilated, since numerous efficient devices to this end are in the market.

The enormous power wielded by street railroads makes it difficult to deal with the matter by municipal legislation. Nevertheless, the evil is a great one, and is worthy of most careful consideration by all who are interested in the health of the public.—*Phil. Med. News.*

Religion of Darwin.—During the meeting of German natural scientists and physicians, held last year in Eisenach, Prof. Ernst Haeckel lectured on the natural religion of Darwin, Goethe and Lamarck. In the course of this lecture, he made the following remarks:

"That Darwin also adhered to the same natural religion as Goethe, and that he was no adherent of any special church-confession, is apparent to any one reading carefully his works. But as some of his country-people have immediately after his death contended the contrary, and as some bigoted ministers have praised Darwin as an orthodoxical adherent of a special confession of the English Church, we will be permitted to contradict them by the following undeniable proof. I am so fortunate as to be able to introduce here an exceedingly valuable, so far unknown document, which will remove every doubt that might possibly exist.

"A young German student, whose Christian religion had been shaken by the perusal of Darwin's work, and who had entered the intermediate stage of doubt, wrote to Darwin, for the purpose of getting the advice of this eminent natural philosopher. At first one of the relatives of Darwin answered by excusing the latter's ill-health, great age, and want of time, which prevented him from deciding the questions put to him; but the German student was not satisfied, and so he once more, driven to it by his anxious doubts, wrote to Darwin, begging him to help him in his dilemma. He then received the following letter, written and signed by Darwin himself:

> "DOWN, *June* 5, 1879.
>
> "*Dear Sir:* I am very busy, an old man and in bad health, and I can not gain the time to perfectly answer your questions, supposing that they may be so answered. Science has nothing to do with *Christ*, excepting in so far as the habit of scientific exploration makes a man cautious in recognizing proofs. As far as concerns myself, I do not believe that there has ever taken place any revelation. But regarding a future life, everybody has to decide for himself between contradicting uncertain probabilities.
>
> "Wishing you future welfare, I remain, dear sir,
>
> "Very respectfully yours, CHARLES DARWIN."

SMALL-POX IN BALTIMORE.—Small-pox has now reached Baltimore, in which city it is raging so severely as to seriously interfere with business. The people blame the health authorities for not having taken proper precautions, while in truth the people themselves are to blame for neglecting the only precaution of great practical value against small-pox, namely, vaccination. The city has appointed eighty additional health physicians, and the school board twenty more. A law making vaccination compulsory has been passed. On New Year's Day over 300 prisoners were discharged from the city jail lest they might catch the disease. All this is very good, but it seems like locking the stable-door after the horse is gone. Let *us* take warning—advise all your patients and all your friends to be vaccinated at once, no matter how recently it may have been successfully performed. With pure material it is a trifling and harmless operation, and may be the means of averting a world of misery.

THE cost to the Government of the Star-route trials has just been made public, and we learn that Mr. George Bliss has been paid up to December 1 $40,660.34, and the total sum paid to special counsel at that date was about $70,000. Judge Porter and Mr. Davidge each received for his services in the Guiteau trial $10,000, and Mr. Edwards Pierrepont was paid $3,099.25 in the past year for his services in the discontinued Tilden income-tax suit. These sums have been paid without eliciting a word of comment from the same Congress which, with considerable appearance of virtue as well as economy, denounced the extravagance of the sum it was proposed to pay the four surgeons who were in attendance upon President Garfield, and then created the Board of Audit which subsequently awarded them the total sum of

$20,500. We commend these figures to the thoughtful consideration of the profession and the public.

SEWER-GAS.—Dr. Frank H. Hamilton says this gas is composed of air, vapor, and gases in constantly varying proportions, together with living germs—vegetable and animal—and minute particles of putrescent matter. In short, it is composed of whatever is sufficiently volatile or buoyant to float in the atmosphere, and, in consequence of which buoyancy, it is permitted to escape through the various sewer outlets. The term is, in this sense, well understood; and it is, moreover, just as correct as would be the terms sewer-vapor, or sewer-air, which some have chosen to substitute for it.

The offensiveness of odors is no test of their insalubrity, but the most fatal germs are often conveyed in an atmosphere which is odorless. The absence of unpleasant odors, therefore, furnishes no proof that the air does not contain sewer emanations.

DR. FORDYCE BARKER.—This gentleman, having been recently elected President of the Academy of Medicine, of New York, for the third time, delivered his third inaugural address February 1. During the course of it he mentioned that only twenty-four now remained of the one hundred and eighteen original founders of the society thirty-six years ago; and at the conclusion of the address, Dr. Detmold, one of the twenty-four, gave some interesting reminiscences of the early history of the Academy.

DECEASE OF MR. MAX WOCHER.—Mr. Max Wocher, for very many years an eminent maker of surgical instruments in Cincinnati, died recently. The hundreds of physicians of Ohio, the West and Southwest, who knew Mr. Max Wocher favorably, for he was an upright man, pleasant gentleman and skillful mechanic, will learn of his decease with regret.

THE ALUMNI ASSOCIATION of the Ohio Medical College will be held in the College building, at two o'clock P. M., on Thursday, March 8. Address by Wallace Neff, M. D.

C. S. MUSCROFT, M. D., Secretary.

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Original Contributions.

The Etiology of Consumption.

BY D. N. KINSMAN, M. D., COLUMBUS, O.

Read before the Ohio State Medical Society.

MORTON, in his treatise on consumptions, treated of eleven varieties, basing his divisions on their etiology. Bayle, classifying on the basis of morbid anatomy, described five kinds. Laennec reduced all forms to one, *i. e.*, tubercular.

Reinhart and Virchow led a revolt against this exclusive view and made two divisions. Niemeyer threw his influence on this side. Opinions at the present seem to be tending toward the adoption of Laennec's views, and the idea of the unity of the disease.

I shall use the term consumption in its widest sense. Tuberculosis may be marked by general or local deposits, and it is yet a question whether the pathological changes which have been attributed to catarrhal process pure and simple are not due to tubercular infiltration. On this point I will speak hereafter.

Too much stress has been placed upon the presence of the anatomical entity known as tubercle, and too little account has been taken of the condition tuberculosis, which must precede the tubercular eruption.

This condition is as closely connected with the subsequent eruption of tubercles as the stage of incubation of small-pox is with the subsequent eruption.

The forming stage although concealed is a part of the morbid process.

Jaccoud divides consumption into three forms on the basis of etiology. Hereditary, inborn and acquired. In the first class he places those who have lost one or both parents from consumption.

The second class comprises those whose parents have not suffered from any form of consumption, but have had their vitality reduced by debauchery, syphilis, privation and insalubrious surroundings.

The third class includes those who have clear records as to parentage, and have taken consumption by contagion.

There is no term in medicine which has been so loosely used as Heredity. It is used to denote the transmission of a tendency to a special morbid action. In this sense it is used by most of the profession when speaking of hereditary consumption.

It is used in the second place to indicate the actual transmission of a disease from infected parents to their offspring. This is the signification of the term when applied to syphilis.

Both of these usages can not be correct. In speaking of syphilis we do not think a tendency to the disease has been transmitted. We know there was a "generative contagion" and we expect and are not disappointed in the outbreak of syphilis in the child of syphilized parents who have not been the subjects of successful anti-syphilitic treatment.

Recent developments in relation to the inoculability and contagion of tubercle, render it probable that we are coming to the position in which we shall be obliged to regard the hereditary transmission of consumption in the same light, in which we at present regard the hereditary transmission of syphilis. But it may be objected that the outbreak of syphilis is speedy, occurring during the first weeks of life, and the causal relation is immediate and evident, while the development of consumption is delayed for years.

To this we reply, both diseases are inoculable. In both syphilis and tuberculosis, the fetus in utero shows the peculiar lesions of the two diseases, when the diathesis has been potent enough to destroy life. They each have a special mode of evolution. In both diseases we must conclude the new being has had its organization impressed by the poisoned germ and sperm cells which united in its inception.

"Heredity," which, according to the profound and happy expression of Baume, is nothing but a "generative contagion," "may transmit to infants either the diathesis itself, or the physiological formula of constitution and temperament which will render them more apt to receive the germs coming from without and cause them to fructify."—*Fossagrives.*

"In hereditary phthisis, the diathesis, that is to say the vicious disposition to make tubercle, is here at the maximum. Contemporaneous with the conception of the being, it becomes an integral part of its personality, it is one of its attributes."—*Jaccoud.*

The tubercular diathesis intensifies from generation to generation, so that the intermarrying of those who are affected with the hereditary taint resembles a long continued cultivation experiment, till in the end the children of these highly diathetic parents perish before they arrive at a procreative age—abolishing thus the diseased progression by the destruction of the family. Such experiences are common. Nor is this increase of virulence of the infecting power of tubercle unknown in experimental pathology.

H. Martin has shown that tubercle is to be known by its inoculability—and this capacity for inoculability extends indefinitely, while pseudo-tubercles, or those growths caused by the injection of indifferent materials, cease to be inoculable in the second or third generation. He has further shown that the exposure of tubercle in a test tube to a heat of from 60° to 85° for a short time developed in the material such virulence as to cause the death of guinea pigs in a few hours, with acute peritonitis and gangrene of the liver. While other guinea pigs inoculated with the fresh matter survived for weeks. Tuberculous matter exposed to the temperature of boiling water becomes inocuous when inoculated.

These experiments afford a strong confirmation of the idea that the poison in tuberculosis is parasitic.

Now if there is a contagion which can be transmitted from parent to child, we should expect the time would arrive, when, in cases where the diathesis is strongly marked from its existence in successive generations, the infection would pass beyond the fetus and affect a healthy mother during her pregnancy as occurs in syphilis.

That such a mode of transmission of tuberculosis may occur we think the following cases, reported by Hermann Weber, which I have quoted from Dr. Clapp's book, *Is Cousumption Contagious*, render extremely probable.

J. had seen his mother, two brothers and a sister die of pulmonary consumption, and had himself on two occasions had hemorrhages when twenty and twenty-one years old.

He became a sailor and was apparently in good health when he left home, in his twenty-fifth year. He married four wives.

First. A woman belonging to a perfectly healthy family. She enjoyed excellent health until her third pregnancy, when she began to cough and grow thin. She died after her third confinement.

Second. At the end of a year he remarried. The second wife having every appearance of health, but at the end of a year of conjugal life, she began to cough, spit blood and soon after died of quick consumption.

Third. The third wife belonged to an exceptionally healthy family consisting of a father, mother, four brothers and two sisters, all living and in good health. When she was married she was twenty-five years old, and continued to have good health, until her second pregnancy, when she began to cough, and have feverish turns. She had two hemorrhages, and when I saw her, seven weeks after her second confinement, she showed extensive lesions in the upper part of her lungs, also hectic fever and profuse sweats. A month later she was taken with severe hemorrhages, and died shortly after, eight months from the appearance of the first symptoms. The autopsy revealed pneumonia and tuberculous consumption combined, to make use of an expression employed by the late Dr. Addison, who visited the case with me.

Fourth. The fourth wife, whom I also attended, had not a sign of consumption in her family and at the time of her marriage was twenty-eight years old, and in the enjoyment of perfect health. About thirteen months later, three months after her first confinement, which resulted happily, she began to cough, and had a little fever. Then very clearly defined signs appeared first in the upper part of the right, then the left lung. She experienced some relief during a voyage which she took to Melbourne, but on her arrival there had a severe hemorrhage, and died a short time after her return to England, nine months after the appearance of the disease. The autopsy showed extensive pneumonia and tuberculous lesions in both lungs, as well as tubercles in the intestines, spleen and liver.

At two different times in 1854 and 1857, after the third wife's death, and during the illness of the fourth wife, I had occasion to examine J. His general health was excellent and he assured me he did not cough, and merely expectorated a little mucus in the morning. The upper part of the left thorax was flattened and percussion showed it to be less resonant than the right; inspiration was less distinct, expiration was prolonged and from time to time rales were heard.

He did not remarry, not wishing to expose his choice to "certain death." He was healthy and continued to do active duty as a sailor until 1869, when he was forced to keep his bed for some months on account of a severe fracture; he then began to cough. The upper part of the right lung, which had until then been healthy, became diseased, and consumption developed in the usual way and caused the patient's death in 1871.

The autopsy showed cicatrization where the disease had first seized him, and also more recent lesions.

Another case by same authority: W. belonged to a consumptive family. He had lost his father and two sisters by that disease, and had himself had hemorrhages and other pulmonary symptoms at the age of nineteen, but he had in three successive winters made voyages to Venice, and was so much improved that he considered himself well. When twenty-six he married. His first wife was young, in excellent health and belonged to a remarkably robust family. She began to cough near the end of her first pregnancy, had hemorrhage after confinement and died of consumption four months later.

Second. He again married in 1852, a young girl of twenty-one, perfectly healthy but not without hereditary taint. She continued healthy during her first pregnancy, and to the middle of the second, when she had several attacks of "inflammations of the lungs," followed by two hemorrhages from which she never recovered, dying of consumption four months after her second accouchement.

Third. After a rather short interval he again married. The woman was young and stout. Her father and mother were healthy, as were her four sisters and her brother. About three months after her second confinement she was attacked by inflammation of the lungs, from which she never recovered. Both lungs were affected, the right to a greater degree than the left. She had too severe attacks of fever every day, frequent sweats, diarrhea and considerable emaciation. Tubercular meningitis set in a short time after my first visit to the patient, and she died nine or ten months after the appearance of the first symptoms. The autopsy showed extensive lesions on the right side, and a general miliary tuberculosis. The uterus was healthy.

The husband's general health appeared good; he could walk long distances, but when he remained quietly at home he suffered from dyspepsia. The regions above and below the clavicle on the right side were flattened, and when struck the sound was dull. The respiratory murmur was entirely wanting and once in a while dry rales were heard. The patient was hypochondrial and filled with remorse several months after his wife's death, but he rallied and lived much in the open air.

He was stricken with typhoid fever in Germany, followed with a pleuro-pneumonia. He died of consumption six months after the fever.

By same authority: Z.—no information about his family—had two hemorrhages about the age of nineteen; was ill at this time several months, but had entirely recovered and had exposed himself to all kinds of weather without experiencing any ill effects. At the age of twenty-three he was married. His first wife was a healthy and robust woman, twenty-one years old, with no predisposition in her family to consumption, but after the birth of her first child she became ill and died in five months from quick consumption.

About two years after, he married a strong woman, twenty-seven years old, belonging to a remarkably healthy family. Eighteen months after her marriage, and three months after her accouchement, she began to cough and grow thin. The cough never entirely disappeared. Two months later she again became pregnant, and when I saw her she was in her eighth month of pregnancy and very thin.

It was a type of consumption in the last stages; the greater part of the left lung being affected, but not to such an extent as the right. A month later she was confined and lived three months after it. The autopsy showed lesions from recent sub-acute consumption, *i. e.*, infiltration of gray color and of different consistencies, cavities recently and irregularly formed, with no lining, and gray and yellow tubercles scattered about.

Z., the husband, considered himself well, nevertheless showed flattening in the upper part of the left side. The resonance on percussion was plainly imperfect, as well in the region above as below the clavicle as in the corresponding places behind.

Six years later, after his return from Germany, in 1865, he again had severe hemorrhages and died in 1866. I have no information of the autopsy.

The following case occurred in Ohio. Mr. B. had seen his father, mother, three brothers and a sister die of consumption. He had had cough, emaciation and expectoration for months but recovered. He was married three times.

First. A strong and vigorous woman in whose family after a lapse of twenty years there has been no consumption. She became pregnant, during which she began to cough. She rapidly sunk, and died of consumption fifteen months after her marriage. In two years, he again married a large and robust woman, with no hereditary taint. She became pregnant, began to cough and grow thin during its progress, and died eighteen months after her marriage.

The third wife was a frail, delicate woman. No history of hereditary taint. She did not become pregnant, but died five months after her marriage of quick consumption. Last of all, B. died also of consumption.

Nor is hereditary transmission of consumption confined to the human being. Burdon Sanderson says that the progeny of a Scotch bull, whose lungs were found stuffed with tubercles after his death, were infected with the disease. A phthisical ram infected fifteen or twenty of his progeny in a flock of merinoes. Guinea pigs tubercularized by experiments have produced tuberculous offspring. Tuberculosis is the transmitted diathesis. The transmission we recognize when the tubercle has been formed, for it is the only thing which the morbid anatomist recognizes as the index of tuberculosis.

Thus much on the nature of hereditary transmission. I shall now consider the third category of Jaccoud, the acquired cases. In this class are placed those cases which arise by accidental implantation of the germ from an unknown source, and those where there is evidence of direct contagion—or communication of the disease from the sick to the healthy.

That consumption is contagious there can be no question. The number of experimenters and the general harmony of their results admit of no reasonable doubt. Tubercle is inoculable and therefore contagious. By a contagion I mean a poison which has been elaborated by a diseased process going on in the body, and is capable of reproducing the same morbid process in any body into which it shall be introduced, hitherto unaffected. The proofs of this are drawn from the field of experimental pathology, with which all are familiar during the last decade, and from clinical observation.

I shall now report a series of cases illustrating the contagiousness of consumption. Some months ago I sent out a large number of copies of the following list of questions. I received twenty-five replies; too few for analysis, but many interesting cases were reported which I shall now introduce. I take this opportunity to return my thanks to all those medical gentlemen who have assisted me in this work.

1. Have you knowledge of the destruction of families by Consumption, in such a manner as to give evidence of the communication of the disease from the sick to the healthy persons of the family?

2. Do you know of any cases of the communication of Consumption from phthisical husband to a healthy wife—or from a sick wife to a previously healthy husband?

3. Do you know of any instances in which Consumption has been introduced into a previously healthy family, by having a person sick with Consumption taken into their home, and nursed there till death?

4. Do you from the evidence of your professional experience believe Consumption is ever communicated from the sick to the healthy, unless they are the victims of a diathetic tendency to the disease?

5. Do you think Consumption more frequently arises in the children of parents who have died from the disease, than in the children of those who have died from other chronic diseases of early and middle life?

6. Can you give any estimate of the proportion of *hereditary* and *acquired* cases of Consumption in your practice?

I. G. was born in a family in which there never was a case of consumption known. He lived a healthy, active life working at the carpenter's trade. His wife descended from a family in which there was hereditary taint. In 1865 Mrs. G. had a hemorrhage from the lungs. I first saw her in 1866, when she was still suffering from a hacking cough and some emaciation. In October, 1866, she brought her daughter, aged 18, for examination. She had cough and consolidation of the apices. She died in the spring of 1867. The mother became worse and had a succession of hemorrhages, severe cough, much expectoration and emaciation. Mr. G. occupied the same bed with his sick wife. In September, 1867, Mr. G. began complaining of sore throat and the laryngoscope showed what I diagnosticated tubercular ulceration of the larnyx. He became aphonic. The dysphagia became extreme, he emaciated and finally died in 1868, in May, I think. Mrs. G. died a short time after her husband. Three other daughters followed in quick succession, so that in five years the whole family was extinct.

I could never in Mr. G., recognize any respiratory change in the lung but harsh expiration. I think he was infected from his wife.

Case 2.—Mr. C., age 33, consulted me in 1879, in February. Had until a few months ago been a healthy man. He knew of no hereditary taint in his family. He was married eight years ago to a woman in feeble health, who bore him one child. Consumption developed in his wife and she died in 1877. During her illness he had much of the care of his wife, sleeping in the same bed, till the close of her life. Six months after her death he began to cough and emaciate. His throat became sore about a year ago. He was aphonic when I saw him and had tubercular laryngitis. His feet were edematous. He had cavities in his lungs. He died the last of March, 1879. I believe this disease to have been communicated to the husband from the wife.

Dr. Geo. W. Boerstler, of Lancaster, reports the following:

A. M., in whose family there is not known to be any hereditary taint: Father at 60 died from strangulated hernia; mother still living. Married Miss W., whose family is likewise free from hereditary taint. One child was born, the mother suffered great prostration during lactation. She subsequently had an attack of pneumonia from which she never recovered. Consumption developed and she died eighteen months thereafter. During her sickness her husband occupied the same bed with her till the close of her life. About one year after the death of his wife, A. M. married a second ime, to Miss G., then a strong and healthy woman in whoset family we can trace no hereditary taint. A short time after his second marriage, A. M. began to cough, had fever, emaciated and had hemorrhages from the lungs and died of consumption two years after the death of his first wife.

Soon after the death of A. M. his second wife was attacked with consumption and died eighteen months after her marriage. I think undoubtedly, A. M. took consumption from his first wife and communicated it to his second wife.

Dr. H. M. Henderson, of Marysville, Ohio, reports:

H. B. married into the family of J. N. Mr. B. began to cough in February, 1879, and had some hemorrhage from the lungs. Finding his cough increasing and strength failing he rented his farm and moved to the house of Mr. N., his father-in-law, "to die," as he said, for none of his family ever recovered from the disease he had. In October, 1879, his wife was prostrated by an attack of intermittent fever, leaving her only sister, aged 19, to act as nurse for Mr. B. and his wife. I cautioned Miss N. not to inhale the breath of Mr. B. when he was coughing as there was danger if she inhaled any of the particles of matter, of her contracting the disease. Mrs. B. and Miss N. replied: Then we both shall take the disease, for we have inhaled his breath many times and could even taste it. The result was, Mr. B. died in December, 1880. Mrs. B. and her sister died of consumption in April, 1881. The deaths of the sisters occurred only five days apart. These were, I think, clearly cases of contagion.

W. married into the family of A. A's wife and three daughters died of consumption. One of the daughters was W's wife. I cautioned W. against inhaling the breath of his wife, who was sick with consumption, during her paroxysms of coughing. Before the death of his wife, W. began to cough and shortly afterwards had a hemorrhage. He coughed and spit blood for more than a year. He then got better and is now living although suffering more or less from cough. There has never been a case of consumption in W's family. A most suggestive case on the influence of the breath of tuberculized persons in communicating the disease to others is reported by Reich and quoted in the second volume of Reynolds' Practice, Am. Ed., page 117, to which I refer you, for the particulars.

Dr. N. B. Ridgeway, of Galion, Ohio, reports:

John A. was attacked with what was diagnosticated consumption, yet there had never been a case in his family, either in the near or remote branches, so far as could be learned. He had a cough and expectoration and there were evidences of a cavity in the left lung. He then improved for a time. A relapse followed, with an opening through the chest wall whence much matter was discharged. He also had repeated hemorrhages from this opening, occurring at intervals for months. He was confined to his room for a long time. His father was his nurse for one year and a half, never removing his clothes to sleep for ten months. In less than a year after the death of the son the father died of consumption. A daughter aged sixteen, who nursed her father, contracted the disease and died in a few months. Another son is now sick with hemorrhages. There were three fatal cases of consumption in this family in two years.

Dr. M. F. Lee, of Columbus, reports the following cases:

Mr. B., born of consumptive parents, married at the age of 26 a perfectly healthy woman in whose family no evidence of hereditary taint could be traced. Two years after his marriage he began to cough, lose flesh and died in two years from consumption. During his protracted illness he was cared for night and day by his wife, who slept in the bed with her husband till his death. A few months after, his wife began to cough, lose flesh and complain of pain in her right lung. Eighteen months thereafter she died. During her illness her brother, who had nearly completed his college course, abandoned his studies and nursed his sister, sleeping in the same room with her. Two months after the death of his sister he began to cough and complain of exhaustion. He had frequent hemorrhages from the lungs, and at the expiration of sixteen month she died. A married sister who had hitherto been in excellent health, took care of the young man during the last six months of his life. After his death she became pregnant. She soon began to complain of trouble in her lungs. She emaciated so rapidly that in the seventh month of her pregnancy she was obliged to keep her bed. She suffered premature labor from the severity of her cough, and she soon died from consumption. The parents and two remaining daughters are still living, after a lapse of ten or twelve years, in excellent health. The last mentioned persons had only an incidental contact with the members of the family who were sick and died. The evidence of contagion in these cases seems to me undoubted.

Mr. and Miss E., brother and sister, were members of a family of eight children, all of whom grew to an unusual size. In the family there is no history of hereditary taint. The father was injured in a storm and died from the effects of this accident. The mother died of carbuncle after the death of the father. The brother and sister took charge of a farm a few miles distant. Here the brother was taken with consumption. He rapidly sunk. During his illness his sister had sole care of him, sleeping in the same small, badly ventilated room. A newspaper was hung on the side of the wall, against which the patient discharged his sputa. This paper hung here all night, desiccating by the heat of a stove, and then would be replaced by a fresh one. The brother died. Soon after his death the sister began to cough and in eight months died. The other brothers and sisters remain healthy. We believe the sister's disease was communicated to her by the diseased matters discharged from the lungs of her consumptive brother. Nor do we think it would be possible to devise a better mode for certain communication of consumption than was accidentally put in operation by these unfortunate people.

Translations from Our Foreign Exchanges.

BY DR. ILLOWY, CINCINNATI, O.

INOCULATION OF SYPHILIS IN THE MONKEY.

In a previous number of the Medical News were published some interesting experiments of M. Martineau, touching the inoculation of syphilis in the pig, and his researches on the parasitic character of the syphilitic virus.

We now present some further experiments of M. Martineau (published in the *Tribune Medicale*) as regards the inoculation of the monkey with syphilitic virus.

November 16, 1882, at 10½ A. M., we inoculated a monkey. The inoculation was practiced on the prepuce by means of a vaccinating needle, charged with serosities collected from a syphilitic chancre on the anterior border of the right labia minora of a patient lying in No. 37 Ward, Natales Guillat, who entered the Lourcine November 14.

The monkey had been previously anesthetized; the inoculation was practiced on the inner surface and near the extremity of the prepuce, in three different points—two lateral and one anterior.

At the same time the patient herself, from whom the virus was collected, was inoculated on the right thigh, in order that all doubt might be removed that the existing sore was really an infecting syphilitic chancre. The results of this latter inoculation were completely negative.

Up to the 14th of December no morbid phenomena, either general or local, were observed in the monkey. On this day, the twenty-eighth of the inoculation, we discovered, at the two lateral points of inoculation, two infecting chancres of the size of a small lentil, characterized by a superficial erosion, the bottom smooth and polished, grayish rather than reddish, the borders slightly raised, flattened, not sharply cut off, and gradually losing themselves on one side in the center of the erosion, and on the other side in the surrounding tissue. These erosions rest on an indurated base, giving to the touch the sensation of parchment. The induration is strictly limited to the erosion, so that it is easy to enucleate it as it were from the skin and surrounding parts. It is exactly such sort of a foreign body as serves to characterize in man the syphilitic indurated chancre.

The chancre of the left side is more voluminous than that of the right.

December 16. Aspect of the chancres the same; but there is found in the left groin the development of a ganglion of the volume of a hazel nut, mobile, and seemingly not at all painful. The skin covering it is likewise mobile over its surface, and presents no discoloration.

The general condition of the animal continues excellent; its temperature about 97° F. The indocility of the animal renders the taking of the temperatures difficult.

17th. Same general and local condition; temperature about 99°.

18th. Same condition; temperature, 99½°.

19th. The animal suffering from diarrhœa; temperature, 99½°; local status same.

20th. The diarrhœa persists; temperature, 100.5°; appetite excellent; local status same.

21st. Diarrhœa ceased; temperature, 100.5°; development in the right groin of a ganglion of the same volume as in the left, and presenting the same character as regards mobility and indolence.

Great thirst; paws warm; probable symptoms of a febrile condition. The temperature not having been taken before the inoculation, it is difficult to affirm that 100.5° indicates in him an elevation of the animal heat; in fact, a fever. Nevertheless, there has been since the seventeenth a sensible augmentation of this temperature. We must add, moreover, that this monkey is very old; that his paws were habitually cold, and that he was always keeping near the stove of the room in which he was kept.

It seems from this first and very circumstantial observation that the transmission of syphilis by inoculation from the human system to the monkey is possible; in fact, has been realized. There remains in this well-defined cycle of experimental study to discover the inoculability, from one animal to the other of the same species, of accidents primarily developed in such one, and even such one itself to determine, if possible, the conditions of vaccinal preservation, etc. This is an open field for fruitful researches of the highest importance, and which we hope M. Martineau will continue to cultivate.—*Tribune Medicale.*

PRODUCTION OF SURGICAL ANESTHESIA BY THE COMBINED ACTION OF PROTOXYDE OF AZOTE AND CHLOROFORM.

Note of M. Saint Martin presented to the Academy of Sciences.

According to the experiments made by the author upon himself and animals, the mixture of 85 vols. of protoxyde of azote, and 15 vols. of oxygen, to each hectolitre of which 6 or 7 grms. of chloroform have been added, produces anesthesia very rapidly, and seems to suppress the period of excitation, the chloroform being much more diluted, if one may be permitted to so express himself, and therefore does not in this condition have any irritant effect on the respiratory tract.

The sphere of usefulness of this mixture is certainly more extended than that of chloroform; it lies between that of the last-named agent and that of the protoxyde of azote.

By this method we can avail ourselves of the superiority of protoxyde of azote as an anesthetic agent, whilst avoiding the condition of operating under pressure.—*Tribune Medicale.*

FISSURES OF THE NIPPLE.

Monti advises to paint the nipple with a fresh solution of gutta percha in chloroform—just enough chloroform to render the solution fluid. When dried, this forms a protective pellicle which does not come off even by nursing.—*L' Union Medicale du Canada.*

FOR SPASMODIC AFFECTIONS OF THE RESPIRATORY TRACT IN CHILDREN.—SIMON.

℞ Tinct. belladonna.
Tinct. aconit. rad., . . . *aa. M* 75
Vin. opii, ... *M* 75

M.—3 drops morning and evening, increasing the dose by one drop daily.—*L' Union Medicale du Canada.*

ICHTHYOL.

In the December number, *Monatsheft f. praktische Dermatologie* reports on the use of ichthyol. This is a tarry looking substance, containing sulphur, obtained by a complicated process of distillation from a bituminous stone, first discovered by Dr. Rudolph Schroter in the neighborhood of Seelfeld, in Tyrol.

Dr. Unna speaks very highly of it in the treatment of eczema, psoriasis, and other chronic skin affections. He recommends a 40 to 50 per cent. solution in vaseline or adeps for adults; 2 to 10 per cent. for children. An advantage possessed by ichthyol over other antieczematous agents, is that it allays pain and itching, uniting in itself the good qualities of Hebra's and Wilson's ointment, and of carbolic acid (respect. tar.). Another great advantage over other sulphurous preparations is, that it may be combined with preparations of lead and mercury without causing deposits of metallic sulphates. Dr. Unna recommends the following as an exceptionally effective formula for obstinate eczema, and especially of the hand:

℞	Lithargyri, ...	grms. 10
	Cog. c. acet., ...	" 30
	Ad remau., ...	" 20
	Adde.	
	Ole olivar. adipis, *aa*, . . .	grms. 10
	Ichthyoli, ...	" 10

M. Ft. Ung.

NERVOUS CENTERS GOVERNING UTERINE CONTRACTIONS.

M. Pembo reported to the Biological Society his belief that he had acquired sufficient proof of the existence of autochthonic centers governing uterine contractions. These centers had their seat in the anterior wall of the vagina, and were independent of the cerebro-spinal axis. Their presence in the anterior wall of the vagina is disclosed by uterine contractions coming on as soon as the electric current is brought in contact with them. Anatomically they are characterized by small nerve ganglions, of which the author presented several beautiful specimens.

M. P. Bert objected that the spinal centers could not be put aside altogether in the production of uterine contractions. The following experiment is proof of this fact. A section is made through the dorsal portion of the spine of a rat about to throw her young. The animal is now asphyxiated, and the hardening of the uterus will be perceived under the hand. If, on returning consciousness, the inferior portion of the spine be divided, and the asphyxia renewed, the uterine contractions do not appear any more.—*Prog. Med., No.* 1.

A Case in which an Attack of Acute Inflammatory Glaucoma was Immediately Followed by Inflammation of the Brain.

BY CHARLES J. KIPP, M. D., NEWARK, N. J.

Read before the American Ophthalmological Society.

MRS. H., fifty-one years of age, a stout, healthy German woman, came to the Newark Charitable Eye and Ear Infirmary on December 3, 1881, with a letter from Dr. T. Y. Sutphen, of Newark, stating that he had first seen the patient on the day before, and that he found her suffering from acute glaucoma, for which he had prescribed instillations of the sulphate of eserine. From the patient it was learned that the attack began ten days before with great pain in her back, which was followed a few days later by severe headache and sickness of stomach. On the advice of her family physician she applied a fly-blister behind the right ear, and another above the right eye, on November 28th, and within less than half an hour after their application the right eye became red and excessively painful. Since then the sickness of stomach and the pain in the head and eye have continued. Within the last few days the right eye has become blind.

The symptoms presented by the eye when I first saw the patient were those of acute inflammatory glaucoma. There was, however, greater congestion and chemosis of the entire ocular conjunctiva than I had ever before seen in this disease. The pupil was of medium size—a one per cent. solution of the sulphate of eserine having been frequently instilled during the preceding twenty-four hours. The media were so cloudy that the fundus oculi could not be seen. The eye had perception of light only. Tension + 2. The pain in eye and head was almost unbearable.

I immediately put the patient under the influence of ether, and made a tolerably large iridectomy upward with a narrow

v. Graefe knife. The operation was perfectly clean, but all efforts to return the corners of the sphincter to their proper position were fruitless, although no iris was apparently remaining between the lips of the wound. During the night following the patient slept soundly, and next morning was entirely free from pain in eye and head, and the tension of the eye was normal. On the third day after the operation she was able to see me distinctly with this eye. The anterior chamber was restored, and the congestion and œdema of the ocular conjunctiva were subsiding. But during this day the left eye became painful and inflamed, and on the morning of the fourth day presented the symptoms of a moderately severe attack of acute glaucoma, which, however, yielded to instillation of the sulphate of eserine in the course of two days, and left the sight of this eye unimpaired. The only feature of this attack worthy of mention was the excessive pale œdema of the ocular conjunctiva, which, in some places, was raised in the form of blisters.

Ten days after the iridectomy the right eye was nearly free from conjunctival injection; the anterior chamber was somewhat shallow; the iris nearly normal; the pupil of medium size, and the media were clear. Tn. The left eye was apparently healthy; the pupil small and fastened by numerous small synechiæ to the anterior capsule. At the urgent request of the patient, I allowed her on this day to be taken in a carriage to her home, which was but a short distance from the hospital.

During the following ten days the eyes continued to improve, but on December 25, twenty days after the iridectomy, the right eye became again very painful, and the sight failed rapidly. At my visit on this day I found some œdema of the lids, and the ocular conjunctiva intensely injected and very œdematous. The cornea was clear, but the iris was discolored and swollen. The pupil and the coloboma were apparently somewhat smaller than before. The vitreous was so full of opacities that the optic disc could not be seen.

The lids of the left eye were also puffy, and the ocular conjunctiva œdematous, but not so much injected as in the right eye. The cornea was dull. The anterior chamber of about normal depth, and the iris somewhat discolored. The pupil was small and excluded. The vitreous was very hazy. This eye was also very painful. Vision was not, so far as I could make out in her own room, greatly impaired. In both eyes the tension was little, if any, above the normal. The patient complained chiefly of the severe pain at the top of her head, and of persistent distressing nausea. Pulse 96; temperature normal.

In the absence of a marked increase of tension in either eye, I concluded to delay further surgical interference, and ordered applications of ice to the lids of both eyes, and instillations of the sulphate of eserine in the right eye. Morphine was administered for the relief of the pain.

On the following day the pain in the head and the eyes and the nausea continued unabated. The swelling and congestion of the ocular conjunctiva of the left eye had increased. The iris was more swollen and the tension slightly increased. The right eye was unchanged. I now requested that the patient be transferred to the infirmary for the purpose of making an iridectomy on the left eye. Meanwhile instillations of eserine were made in both eyes, and the sulphate of quinine was given in considerable doses.

In the afternoon of the next day the patient was brought to the infirmary. An examination made at this time showed the left eye to be in about the same condition as on the previous day. In the right eye the cicatrix of the iridectomy had become softened, and at both ends a small prolapse of iris was seen under the conjunctiva. Otherwise this eye remained as before. The patient was put under the influence of ether, the prolapsed iris in the right eye was abscised, and a small but clean iridectomy made on the left eye. The abscission of the prolapsed iris caused the evacuation of the anterior chamber. Notwithstanding these procedures, the pain in the eye and the head and the nausea continued.

On the second day after these operations the swelling and injection of the ocular conjunctiva of the right eye was as great as before; the anterior chamber was not restored; the iris was swollen and the pupil small. In the left eye the ocular conjunctiva was more swollen and injected than before the operation; the anterior chamber was restored; the iris was discolored, and the pupil contracted. The pain in the head and the eyes continued. Atropine was instilled in the left eye.

On the following day the right eye was unchanged. In the left eye the aqueous humor was turbid; otherwise there was no change. Patient was very restless, and complained bitterly of the pain in the head and eyes.

Next day a fibrinous exudation covered the iris, and a star-shaped mass obstructed the pupil in both eyes. Notwithstanding frequent instillations of a two per cent. solution of atropia in the left eye, the pupil remained very small. Six leeches were applied to each temple, and warm water fomentations were kept steadily on the eyes. The instillations of atropia were continued. Quinine was administered as before, and morphine was given in sufficient quantity to control the pain.

The eyes remained in this condition during the next three days, and then began to mend slowly. The swelling of the ocular conjunctiva subsided gradually; the aqueous became clear; the exudation disappeared from the iris, and the plug in the pupil was changed into a thin membrane. The pupil remained contracted. On the seventh day after the iridectomy on the left eye the patient raised a considerable quantity of a dark-red fluid. During the night she perspired a great deal, and was mildly delirious. No evidence of disease of the lungs or of the heart could be discovered. There was no cough. The temperature was normal and the pulse varied between 90 and 100. The expectoration of the dark fluid continued for two days and then ceased. After this the patient was comparatively free from headache and from pain in the eyes; but the nausea, the night-sweats, and the mild nocturnal delirium continued. During the day she slept considerably. Her bowels were constipated, and she complained a good deal of dysuria, which was, however, speedily relieved by the free use of flax-seed tea.

On January 7, eleven days after the iridectomy on the left eye, both eyes became again very painful. The lids of the right eye became œdematous, and the ocular conjunctiva swelled to a greater extent than at any previous time. The corneal cicatrix of the iridectomy reopened in its entire extent, and the iris was protruded between its lips. The tension of the eyes was greatly diminished. The lids of the left eye became also swollen, and the fleshy chemosis, which had greatly diminished, rapidly attained its former degree. The aqueous was muddy, and the iris much swelled. Tension of this eye was about normal.

The headache was now as severe as ever. In the daytime the patient was in a state of stupor, from which she could be aroused, however, without great difficulty. During the night she was violently delirious. All food was refused. The nausea and the constipation continued. Temperature and pulse were normal. In addition to the medicines previously mentioned, she was now given small doses of calomel. The bowels were moved by castor oil.

On January 10 the right eye was unchanged. In the left eye the anterior chamber was greatly diminished in depth; otherwise the eye presented no change. Both eyes were so sensitive to the touch that the patient would cry out if an attempt was made to open the lids. From this time until her departure from the hospital the eyes remained in the state last described. There was but little change in the other symptoms. The patient was in a semi-somnolent condition all day, and frequently moaned pitifully. The night-sweats ceased, but the delirium continued.

On January 14 she became comatose; passed urine in bed; obstinate constipation.

On January 16 she had a series of epileptiform convulsions. The coma continued; at times a dark fluid escaped from the mouth when the head was turned to either side. Pulse 120; temperature normal.

January 20.—Since last report the patient has had daily a number of convulsions. The coma continued till this morning. The patient has taken some liquid nourishment and appears to be conscious at times. She has to-day, for the first time, asked for the chamber, and apparently knows her nurses. Most of the time she is asleep. Pulse 120; skin cool. Bowels moved to-day for first time for a week. This improvement continued until the night of January 24, when she became so greatly excited that it required several persons to prevent her from getting out of bed.

January 25.—Patient was delirious all day. She refused to take food, and spit out all that was put in her mouth. She vomited several times, and had a passage from her bowels. In the evening she had another series of epileptiform convulsions.

January 29.—Since last report the patient has been delirious night and day. Morphia and bromide of potassium were given, but had but little effect. The bowels were again constipated. She took but little food. At times she would ask for the chamber to urinate, and at other times pass her water in the bed. Pulse 120–130; temperature normal. Patient was on this day removed from the hospital to her home, where she died February 8, at 9 A. M.—sixty-seven days after she came under my observation. As regards the symptoms during the last ten days of her life, I know nothing. No autopsy was made.

Remarks.—The case here reported is the only one in which cerebral disease supervened on glaucoma occurring in my practice, and I have been unable to find in the literature accessible to me a report of a case at all resembling the above. It is well known that an attack of acute glaucoma is sometimes developed in the course of severe inflammatory diseases of other organs, and in fevers, and it seems to me to be not at all improbable that in this case also the cerebral disease existed at the time the glaucoma first manifested itself. The backache, the pain in the head, and the distressing nausea which preceded the pain in the eye may as well have been symptoms of the cerebral disease as of the glaucoma, though it must be admitted that this supposition is not strengthened by the fact that the symptoms enumerated were relieved for some days by the iridectomy. That the brain affection was caused by the glaucoma will not be maintained, I think, by any one familiar with brain diseases. With regard to the very unusual course of the eye affection, I am inclined to think that the numerous posterior synechiæ observed in the left eye after the first attack of glaucoma were the result of the prolonged use of the sulphate of eserine. For the relapse of the glaucoma, after the iridectomy and reopening of the cicatrix, several weeks after the operation, I am unable to assign any other cause than the cerebral disease.

NOTE.—Since the above was written I have read Mooren's "Funf Lustren Ophthalmologischer Wirksamkeit," just published, in which I find it stated that the author has seen four cases of glaucoma which were caused by myelitis. In Mooren's opinion the glaucoma resulted in these cases from the irritation to which some of the fibres of the trifacial nerves were subjected at their point of origin. Mooren states it also as his conviction that a causative relation exists between softening of the brain and glaucoma, and mentions it as a fact that many glaucoma patients are, in later years, attacked by brain disease.

REMARKS.

The President was satisfied that some such connection between the eye and the cerebral symptom as was mentioned by the author did exist in some cases. He had one case of the kind, in which an attack of acute glaucoma was the initiatory symptom of a brain trouble, which terminated in death. At the autopsy he found softening of the brain with extensive and very severe atheromatous degeneration of the arteries.

Selections.

A Clinical Lecture on Gastro-Duodenal Catarrh in Young Children, in Harvard Medical College.

BY JOSEPH P. OLIVER, M. D., BOSTON.

PHYSICIANS in general practice are often called to see and prescribe for little patients, who present the following symptoms: They are delicate-looking, and one is told that for some time past they have complained of languor and weariness, particularly after slight exertion. They appear to be bright and fresh enough in the morning, but as the day wears on they are apt to be dull, and disinclined to play. When the hour to be dressed and go to the park arrives, they do not care to go out, but prefer to stay at home. Usually good-natured and amiable with their brothers and sisters or other companions, they now become peevish and fretful, complain of occasional headache, are restless at night, grind their teeth, have bad dreams, wake up suddenly in terror, and at times with pain in the legs. The appetite is capricious; to-day there is none whatever, to-morrow it may be voracious. After eating, they will frequently complain of pain in the region of the stomach and small intestine. The tongue is at times clean, and again it has a moist, milky coat, through which the papillæ show prominently. The tip and edges are usually clean, and not particularly red. The bowels may be constipated, or they may be so for a few days, and then a little loose, or the child may have a slight clay-colored operation daily for a week or ten days. The breath is at times very offensive. In the autumn or spring there is apt to be more or less follicular pharyngitis. Now, this condition of things persists till the child has what the mother calls a "bilious attack"—that is, headache, nausea, vomiting and diarrhœa. The child is then in bed for a few days, and after that is a little better for a while, but in the course of a few weeks goes through with the same thing again. Occasionally there is a little cough; short and hacking during the day, but loose in the morning. The temperature is never above the normal, unless the so-called "bilious attack" is protracted. Now, the foregoing symptoms go to make up what is called gastro-duodenal catarrh—an affection which, in my experience, is very common, especially in girls between the ages of four and twelve. Sometimes the symptoms are vague and indefinite. The patients do not have the explosive or so-called bilious attacks, and the parents do not seek advice until the condition of emaciation or a slight cough suggests the terrible name of phthisis. The symptoms often come under the head of that unscientific term, "general debility," and I am very sure that in children these symptoms mean nothing more nor less than gastro-duodenal catarrh.

The affection is often met with after some exhausting disease like pneumonia or typhoid fever; it may, however, occur without being preceded by either of those affections. I presume that during the fever the system in general becomes so exhausted that the digestive organs partake of or share in the general weakness. In these cases the appetite is at times voracious, and, if the child is allowed to indulge it, the penalty of the indiscretion is generally pretty severe; an acute attack is developed with its train of distressing symptoms, such as pain in the head, nausea, vomiting, intestinal pain, and, perhaps, diarrhœa. As is well known, a child is not nourished by the bulk of food he takes into his stomach, but only by the food he can digest. In all children there is a constant tendency to acid fermentation of their food. This is very marked in feeble children; it may be due to their diet. The mucous membrane lining the intestinal tract is naturally active, and, on the slightest irritation, pours out suddenly and freely an alkaline secretion; if they have overeaten, or if starchy food has too largely entered into the diet, fermentation is set up, and an acid is formed which stimulates the mucous membrane to further secretion. Now, this excess of mucus is the *fons et origo mali* under consideration, for it interferes with the digestion and absorption of food. As a result, the child is imperfectly nourished, and, from lack of nourishment, the symptoms of general debility, or, properly in these cases, gastro-duodenal catarrh, are developed.

As I before stated, the affection is more common in girls than in boys. With watchful parents some children seldom have the explosive attacks. The cases are less severe, but the child is half sick all the time.

During second dentition this affection is extremely common, and often mothers believe this process to be the occasion of the child's ill-health. Worms are also supposed to be the cause of the illness, and it is not surprising that mothers think so, for it is not unusual to find in these cases lumbrici or oxyuri. The excess of mucus which is secreted forms a favorable nidus for the development of the worm, and, consequently, the parasite is less a cause than a result of the disease.

The symptoms, then, may be briefly enumerated as follows. I refer to the subacute or chronic gastro-duodenal catarrh, not the acute affection. The so-called "bilious attacks" which occur in these cases are simply the affection rendered acute for a few hours or days, and need not be described in this lecture.

First, the child's appetite is capricious or fails altogether. He is constipated, and, perhaps, the constipation is followed by diarrhœa for a day or two. After this state of things has gone on for some time, he complains of feeling tired on slight exertion, is languid, indisposed to play. At times he is fretful and peevish, restless at night, grinds his teeth, wakes up suddenly with severe pain in his legs or in great terror. The child emaciates, the eyes are sunken and surrounded by dark rings. The skin becomes thin, harsh, and dry. There may be nausea and slight headache, with blurring of the eyes, and, in older children, muscæ volitantes.

Through all this the tongue may be tolerably clean, or it may have a light milky coat, with the papillæ showing through prominently, the latter fact being generally significant of digestive disturbances in children. The so-called "worm-tongue" may exist—that is, a tongue tolerably clean on the tip and edges, with a coating of shiny mucus in the center. The tongue is seldom markedly affected. The breath is often very offensive, though foul breath may be due to the disordered stomach or to buccal or pharyngeal catarrh. The cough which may be present is due to either slight bronchial catarrh, follicular pharyngitis, or elongated uvula. You frequently find hypertrophied tonsils in these cases, and the decomposition of the thick yellow secretion will account for the foul breath. Earache is not at all uncommon in these cases. I believe that I have before alluded to the occasional pain in the epigastric region after eating.

Now, having made a careful examination of the little patient, and having come to the conclusion that the symptoms are due to gastro-duodenal catarrh, having recognized the weakness of the digestive system, and having seen the evidence of defective nutrition, our indications for treatment are plain enough. We must increase the nutrition—that is, increase the supply of food, but at the same time we must be careful in our selection, as the fact that the digestive system is feeble must ever be before us.

Treatment.—First, the diet is to be arranged; as the tendency to fermentation is so marked in these cases, I eliminate the starchy foods as much as possible. You can not deny a child from six to twelve years bread and potatoes altogether, but you can arrange an agreeable and varied diet, so that he shall get a minimum quantity of these articles. Many physicians believe that such cases would be benefited if oatmeal and cracked wheat should enter more largely into the diet; it is not so, however, according to my experience. It seems to me that oatmeal and cracked wheat illustrate most admirably the old adage that "what is one man's meat is another man's poison." Particularly in the summer season should the oatmeal be interdicted. In these cases I generally order a cup of weak mutton, chicken, or veal-broth, to be given to the child as soon as he wakes in the morning—before he gets out of bed even. A good-sized teacupful is enough; of course, it must be warm. Then, an hour or so later, a little toasted bread or stale French bread. The crust of the long French roll is excellent, and children usually like it. With the toast or French bread may be given a cup of milk and a hard boiled egg chopped fine, to which may be added a little butter and salt, or, better still, a little cream, or, in place of the egg, a little broiled fish. Some children will object to the milk, and in such cases you will do well to prescribe Schweitzer's cocoatina, Cadbury's cocoa essence, or Fry's cocoa powder. Children, as a rule, like the cocoa or chocolate flavor, and do not object to the milk when so disguised.

At noon a dinner consisting of beefsteak, chop, a little bird, roast beef or mutton, not too much cooked, with meat gravy; but no made gravy or sauce is to be allowed. At night dry bread and milk. The broth, if not too rich, may be repeated at this meal. Some mothers think this a pretty limited diet, but you should vary it as much as possible, and give four or five small meals a day instead of three larger ones. As the excessive production of mucus in the stomach and intestine is to be overcome gradually, and by constant efforts, I endeavor to attain this result in two ways: first, by diminishing the production—that is, by regulating the diet; and, secondly, by clearing out the exess or overproduction by means of cathartics regularly administered every third or fourth day. As cathartics I use the aqueous tincture of rhubarb, licorice powder (German), pil. rhei. comp., and occasionally the following powder: ℞ Calomel, 1 part; pulv. jalap., 2 parts; pulv. scammony, 2 parts. M. To be given in syrup.

In mild cases the following recipe has often done good service, obviating the necessity of the regular administration of a cathartic: ℞ Podophyllin, gr. j; alcohol, ℥j. M. Five to ten drops on a lump of sugar morning and evening. The indications for this are constipation, clay-colored stools, and loss of appetite. I do not expect to get a cathartic action from the remedy, for if it produces such an effect it must be used in smaller doses or abandoned altogether. It is to be given for two or three weeks, or even longer. Under its use I have seen the tongue clean, the appetite return, and follicular pharyngitis disappear completely. Under the above circumstances some physicians will order four or six grains of calomel; but as it is very unpopular treatment among many of the laity, I seldom employ it, particularly as other things seem to act as well. One word more in regard to the podophylline: If the patient should have two or three dejections a day, the dose must be diminished about one-half. The good effect of the medicine is not seen for several days. After cathartics, alkalies are of next importance—the bicarbonate of soda or potassa, given in a bitter infusion, say cascarilla, chiretta, gentian, or columbo. If the mucous membrane generally is in a lax condition, to the foregoing bitter and alkali you may add a little tincture of myrrh. As it gives a disagreeable taste to the mixture (already disagreeable enough to the young patient), I would omit it from the prescription unless you consider that the patient really requires it.

The bitter is usually intensely disagreeable to children, and sometimes it is a difficult matter to get them to take it regularly; but if the mother understands the importance of the drug she will make the child take it. Tincture of nux vomica or liquor strychniæ are sometimes useful adjuncts to the bitter infusion. They, of course, render it still more bitter. The objection to syrup is obvious. La Bourboule water you will often find useful. This is a natural arsenical water which comes from La Bourboule, Auvergne, France. The arseniates play the most important part in this water, owing to the powerful action which they possess in a small volume and in a proportional large dose, as they are found in the Bourboule water. No other mineral water known contains so large a proportion. Nowadays it is a favorite remedy with dermatologists; it is indicated in cases of gastro-duodenal catarrh, where you find as a complication obstinate post-nasal and pharyngeal catarrh, and in patients who have the so-called herpetic diathesis, which shows itself by the familiar cutaneous lesions of certain forms of psoriasis, eczema, etc. It should be given warm, after meals, in quantities of one to three or four ounces three times a day, and should not be continued beyond three weeks. Its administration may be resumed after a fortnight —*N. Y. Medical Journal.*

Cerebral Localization and the Psychical Functions.

WITH regard to the general physiology of the cerebral hemispheres there is little doubt or dispute.

If Hippocrates really taught (what is by no means certain) that the brain is a cold inert gland, of no use but to secrete phlegm and cool the blood, the school founded by him soon promulgated a different doctrine, and one celebrated treatise (''on epilepsy''), attributed by some critics to Hippocrates, but probably of a later date, defines the functions of the cerebrum in a manner which could hardly be improved by any modern, except in the way of amplification and precision. Galen, in the second century of the Christian era, first gave authoritative statement to the doctrine of cerebral physiology, which henceforth prevailed for more than fourteen centuries, and which, with some slight modifications of phraseology, still holds. Galen had observed cases of paralysis from brain disease, the perturbations of intellect which arise from cerebral inflammations, the abolition of consciousness and volition which follows an apoplectic stroke, and the partial losses in the psychical sphere (amnesia, aphasia, etc.), which commonly attend a return to consciousness after apoplexy.

It can hardly be said that much was added to the sum of knowledge of cerebral physiology taught by Galen, till the modern era of experimentation on animals commenced—an era almost dating with the beginning of this century.

If the physician of the olden times obtained important scientific data respecting brain-function from clinical observation, aided now and then by the autopsy, the phenomena of dementia and mental alienation being also of great suggestive value, his modern successor is able to utilize all these facts, and to greater advantage, since the means of precision have been multiplied, and cerebral physiology has received a powerful reinforcement from comparative neurology.

In accordance with what logicians call the "method of concomitant variations," the physiologist studies the gradations of the brain and nervous system throughout the animal series, and observes like gradations in the powers of mind. The effects of toxic agents and stimuli in altering cerebral function are also noted. By the "method of *difference, i. e.*, removal of *parts* or the *whole* of the hemispheres, more important results still are gained. Of course it is assumed, as the basis of these investigations, that throughout the entire animal kingdom homology of structure implies homology of function, and that inferences fairly deduced from carefully conducted experimentations, are legitimate inferences.

The only animals that have survived the entire removal of the cerebral hemispheres, so as to be subjects of experiment, are birds and cold-blooded animals. The general characteristics of animals so mutilated are alike in all. Though excito-motor and sensori-motor action (terms for which we are indebted to Dr. Carpenter) remain, ideo-motor and voluntary action are lost. "How admirable!" says Flourens, who must be credited with the first experiment of this kind, "all the organs of sense remain, and all the perceptions are lost."

With the loss of perception, volition, desire, judgment and memory are lost. Automaticity is at its highest in these animals, the control of whose limbs is little dependent on voluntary acquisition, all the faculties and functions except the most psychical being fully developed in them at birth, and co-ordinated in the sensori-motor and spinal centers; consequently destruction of the cortical centers does not cause that paralysis of movement which is noticed (more or less permanently) in all animals higher in the scale of development. Such, at least, is Ferrier's explanation of that retention of motricity which succeeds the mutilation.

If it were possible in a human being to remove the cerebral hemispheres, and not produce such a shock as to cause immediate death; if the individual could survive such an operation as does the pigeon, we should undoubtedly witness a man reduced to the state of an automaton, without desire, without emotion, without perception, without volition. Nature does, in fact, produce the experiment for us, although the lesions are far more complex than those above described. There is a form of melancholia called by Baillarger, Ball, Etoc-Demazy, and others, *stupor*, whose material lesions produce suspension (by pressure) of the functions of the cortex, and whose psychological accompaniment is absence more or less complete, as the lesion is more or less general, of all mental manifestation. In pronounced cases the subject is listless, emotionless, and unconscious—remains fixed to one spot (like Flourens' bird), and seems as if deprived of his special senses. The characteristic lesion of this form of mental alienation, according to Etoc-Demazy, is œdema of the convolutions. In marked cases of general paralysis of the insane, intelligence and general motility are extinguished; anæsthesia and analgesia are complete; a dementia of the most absolute and hopeless kind exists. The autopsy always reveals, as the essential lesion, atrophy of the cortical layers of the hemispheres. The living protoplasmic elements are choked out and perish by reason of excessive development and thickening of the meninges and neuroglia. Dementia is acquired idiocy, and is always due to destructive lesions of the cortex; idiocy is due to congenital arrest of development of the cortex.

Hence we see that grave lesions of the encephalon, whether morbid or artificial (the result of experiment), are attended with enfeeblement or disappearance of the most noted psychical qualities, and that motricity also suffers in a marked degree. Whether there be distinct psychical centers (as the phrenologists taught), or whether those portions of the cortex which are peculiarly the seat of mind act as a unit, so that *all* participate in feeling, volition, perception, etc., as Flourens believed, is not absolutely determined. The supposition that the brain "acts as a whole" (so far as the purely psychical operations are concerned), is quite in harmony with the results obtained by a gradual slicing away of the cerebral lobes, as performed by Flourens, Vulpian, and others, on pigeons. It also agrees with the results of lesions, as gunshot wounds, abscesses, etc., in the frontal regions in man, as well as with that integrity of consciousness which often attends complete hemiplegia when one hemisphere is extensively damaged. Goltz, who denies cerebral localizations altogether, believes that every portion of the cortex (those supposed to pertain to motricity, as well as others) is in relation with every function exercised by the hemispheres. His views are thus in harmony with those of Flourens and those of Brown-Sequard.—*Medical Record.*

Treatment of Aggravated Hysteria and Certain Allied Forms of Neurosthenic Disease.

Dr. W. S. Playfair concludes an interesting and quite exhaustive article on this subject as follows:

The principal elements in the systematic treatment of these cases are—

1. The removal of the patient from unhealthy home influences, and placing her at absolute rest.

2. The production of muscular waste and the consequent possibility of assimilating food by what have been called "mechanical tonics;" viz.: prolonged movement and massage of the muscles by a trained shampooer, and muscular contractions produced by electricity.

3. Supplying the waste so produced by regular and excessive feeding, so that the whole system, and the nervous system in particular, shall be nourished in spite of the patient.

On each of these I shall offer one or two brief observations:

1. The removal of the patient from her home surroundings, and her complete isolation in lodgings with only a nurse in attendance, is a matter of paramount importance. This is a point on which I am most anxious to lay stress, since it is the great crux to the patient and her friends; and constant appeals are made to modify this, which I look upon as an absolute *sine qua non*. I attribute much of the success which I have been fortunate enough to obtain in my cases to a rigid adherence to this rule. In almost every instance of failure in the hands of others of which I have heard, some modification in this rule has been agreed to, in deference to the wishes of the friends; as, for example, treating the case in one room by herself in her own house, or in admitting the occasional visits of some relatives or friends. While, however, the patient is to be rigidly secluded, it is incumbent to secure the attendance of a judicious nurse, with sufficient intelligence and education to form an agreeable companion. To shut up a refined and intellectual woman for six weeks with a coarse-minded stupid nurse, can only lead to failure. I have had more difficulty in obtaining suitable nurses, sufficiently firm to ensure the directions being carried out, and yet not over-harsh and unsympathetic, than in any other part of the treatment. Whenever my case is not doing well, I instantly change the nurse—often with the happiest results.

In addition to the isolation, the patient is put at once to bed, to secure absolute rest. In many cases she is already bedridden; in others there has been a weary protracted effort, and the complete repose is in itself a great gain and relief.

2. Under the second head comes systematic muscular movement, having for its object the production of tissue waste. This is administered by a trained rubber, and here again is a great practical difficulty. The so-called professional rubbers are in my experience, worse than useless, and I have had to teach *de nova* a sufficient number of strong, muscular young women; and the aptitude for the work I find to be very far from common, since a large proportion of those I have tried have turned out quite unsuited for it. I can not attempt any description of this process. I need only say that it consists in systematic and thorough kneading and movements of the whole muscular system for about three hours daily, the result of which at first is to produce great fatigue, and subsequently a pleasant sense of lassitude. Subsidiary to this is the use of the faradic current for about ten to twenty minutes, twice daily, by which all the muscles are thrown into strong contraction, and the cutaneous circulation is rendered excessively active. The two combined produce a large amount of muscular waste, which is supplied by excessive feeding; and in consequence of the increased assimilation and improved nutrition, we have the enormous gain in weight and size which one sees in these cases, it being quite a common thing for a patient to put on from one to two stones in weight in the course of five to six weeks. The feeding, at regular intervals, constitutes a large part of the nurse's work. At first from three to five ounces of milk are given every few hours; and for the first few days the patient is kept on an exclusive milk diet. By this means dyspeptic symptoms are relieved, and the patient is prepared for the assimilation of other food. This is added by degrees, *pari pasu* with the production of muscular waste by massage, which is commenced on the third or fourth day. By about the tenth day the patient is shampooed for an hour and a half twice daily, and by this time is always able to take an amount of food that would appear almost preposterous, did not one find by experience how perfectly it is assimilated, and how rapidly flesh is put on. It is the usual thing for patients to take, when full diet is reached, in addition to two quarts of milk daily, three full meals, viz.: breakfast, consisting of a plate of porridge and cream, fish or bacon, toast and

tea, coffee and cocoa; a luncheon, at 1 P. M., of fish, cutlets or joints, and a sweet, such as stewed fruit and cream, or a milky pudding; dinner at 7 P. M., consisting of soup, fish, joints, and sweets; and, in addition, a cup of raw meat soup at 7 A. M. and 11 P. M. It is really very rare to find the slightest inconvenience result from this apparently enormous dietary. Should there then be an occasional attack of dyspepsia, it is at once relieved by keeping the patient for four and twenty hours on milk alone.

Such is a brief outline of the method to which I am here to direct your attention. As to the results, I have already published several remarkable illustrative cases, so that it is perhaps not necessary to do much more in this direction. I may say, on looking back at my cases, that the only ones with which I have any reason to be disappointed are those in which the primary selection has been bad; and in the few in which the results were not thoroughly satisfactory, I had doubts as to their suitability for the treatment, which I expressed beforehand. These include one case of chronic ovarian disease, and one of bad anteflexion with fibroid enlargement of the uterus, in both of which the local disease prevented any really beneficial results. In a third I had to stop the treatment in a week, in consequence of cardiac mischief; two others were cases of positive mental disease; and in one case there was true epilepsy. I have no doubt that any positive co-existent organic disease of this kind should be considered a contraindication. In my other cases the results have been all that could be wished, and in many of them the patients have been restored to perfect health after having been helpless bedridden invalids for years; in one case twenty-three without ever putting a foot to the ground; in others sixteen, nine, six, and so on. In two instances my patients were in such a state, that it was found absolutely impossible to move them except when anesthetized; and they were brought to London by the medical men long distances under chloroform, in each case leaving in six weeks perfectly cured.

Antidiphtheritic Inhalations.

SOME years ago, Dr. H. Hager recommended a mixture composed of carbolic acid, 10 parts; alcohol, 10; water of ammonia, 12; distilled water, 20, as an excellent inhalation in catarrhal affections. It was directed to be used thus: A small wide-mouthed bottle was to be filled one-third with the liquid; then a sufficient quantity of cotton was to be introduced to just soak up all the liquid. The bottle was then to be well stopped. In coryza, incipient catarrh, or similar affections, the inhalation through the nostrils of some of the vapor of the compound was found to be of the greatest benefit.

The same author now recommends a still stronger compound, to be made from carbolic acid, 10 parts; oil of turpentine (or oil of eucalyptus), 5 parts; water of ammonia, 12 parts; alcohol, 20 parts. A small quantity of this is to be dropped into a small wide-mouth bottle half filled with cotton or asbestos, and the bottle well stopped. After a few days a little more may be added, until a strong odor is given off when the bottle is opened.

A physician to whom Dr. Hager recommended the use of the compound thinks that it prevents the spread of diphtheria, since in five families, in each of which one case of diphtheria had become developed, its further spread was arrested, apparently through the use of the antiseptic inhalation. In another family, a second child was taken with the disease; but the child could not be coaxed to inhale the vapor. The inhalations should be as full and deep as possible. In some cases of coryza, it has been used with most excellent effects.

Should the odor of oil of turpentine be too offensive to any person, oil of eucalyptus may be substituted for it.—*Mich. Med. News.*

New York Pathological Society.

PRIMARY CARCINOMA OF THE LUNG.

DR. E. G. JANEWAY presented a specimen removed from the body of a man fifty-six years of age. The clinical history was peculiar in the fact that patient's mother was the only relative who had had cancer, and that was an epithelial cancer which had been removed from the lip a number of years previous to her death, and the disease did not return. The patient began to complain, about one year before death, of not feeling well, but no marked complaint was made until about six months previous to death. His history was that of progressive failure of strength and flesh, a very slight febrile movement toward the latter part of his life particularly, 100° F. being the highest, pain in the right side from the beginning, and afterward some shortness of breath upon exertion. Dr. Janeway saw him about seven weeks before his death, and learned that of late the pain in the side had increased in severity. He found flatness over one-half of the right lung, a distinct friction sound over the upper part, with breathing somewhat bronchial and vocal fremitus impaired, and enfeebled and absent respiratory murmur over the lower part. The line of flatness was nearly horizontal. A hypodermic syringe was introduced, and only a very small quantity of bloody serum could be withdrawn. His presumable diagnosis, leaving it for demonstration at another visit, was cancer of the lung, and besides, he thought it possible that a malignant process back of it involved the pleura. At his second visit he found no marked change in the physical signs. Exhaustion was increasing, there was no marked febrile movement, no renal trouble, and, by exclusion, he reached the diagnosis of cancer of the lung, perhaps of primary origin. At that time the patient complained of some disgust for food, but there was no special difficulty in swallowing, although he preferred liquids. He expectorated a slight quantity of mucus, which apparently came entirely from the throat. There was no bloody expectoration. The patient suffered markedly from dyspnœa on very slight exertion, and finally died from exhaustion.

The left side of the chest was normal, excepting a slight bronchitis, and this was the only abnormal condition found at the autopsy.

The specimen presented consisted of two parts: first, the right lung, in which the new growth involved the middle and lower lobes; and second, a mediastinal growth. There was no enlargement of glands above the clavicles. In the lung the neoplasm showed itself in the form of an infiltrated cancer, with nodular outgrowths taking up the pulmonary tissue entirely, especially at the peripheral part. The lung was separated from the diaphragm by a layer of fluid one inch and a half in depth, but the diaphragm was normal except where it was covered by a slight fibrinous deposit. The mediastinal tumor consisted of a mass of enlarged glands at the root of the trachea. In this apparently uniform tumor the new growth had undergone considerable fatty degeneration. In the lung the new growth encircled the bronchi, and crowded their walls from without inward, so that they were apparently filled. There was a pin-head new growth in the lower part of the right lobe of the liver. All the other parts of the body, including the esophagus, were normal.

From the history of the case and the appearance of the specimen, Dr. Janeway believed that the primary growth was in the lung, and that the mediastinal tumor was secondary. Microscopical examination showed alveoli of medium and large size, containing small polygonal epithelial mono- and bi-nucleated cells.

This was the fourth specimen of primary cancer of the lung which he had seen. In one case he made the diagnosis of carcinoma of the lung ten months before death, and at that time there was no other trace of the disease in the body, but at two months before death carcinoma began in the left breast, and at the time of death the latter growth had reached considerable size. In that case there was no mediastinal tumor, but there were secondary nodules in the liver and right lung. The patient's father died of carcinoma of the stomach, and a cousin had lympho-sarcoma of the pleura.

In the third case it had been supposed that the patient had pleurisy, but the autopsy revealed primary colloid carcinoma of the entire lung. The lung and the liver were the only organs involved.

Comparative Value of the Alkaline Bromides.

The results of the comparative experimental and clinical studies of Cheron and Fawkney on the above-mentioned bromides may be summed up in the following:

I. Sodium bromide controls reflex irritability and at the same time lessens sensibility, thus distinguishing itself from bromide of potassium, which also acts at the same time upon the nervous and muscular system in the double action of the bromide combination and potassium salts. The authors found in relation to the physiological action of bromide of sodium on man: 1. An increase in the secretion of urine. 2. Increase in its solid constituents. 3. Diminution of urea. The dose ranged from one to four grains daily. If a dose of four grains was given daily for a longer space of time an equalization took place, the excretion of urea increased again up to 17 or 19 grammes, and the amount of solid constituents to above the normal. In consequence of this observation the authors tried bromide of sodium in convulsions, renal deposits, and rheumatism, and with good results.

II. Ammonium bromide in the same dose (1 to 4 grammes), and administered under similar circumstances, gave the following results: 1. Diminution in the quantity of urine. 2. Increase in density, aside from its decrease in quantity. 3. Decrease in its solid constituents. 4. Of urea. This salt acts as a transient excitant resulting from its base, showing however, at the same time, the sedative action of the bromide.

III. Potassium bromide diminishes the excretion of urea, showing, however, but slight diuretic action in daily gramme doses; hence it diminishes the assimilation of matter. It is excreted rapidly by the mucous membranes—similar to the other bromides, the sensibility of which it diminishes, and partly through the kidneys. It acts markedly upon the sensibility of the genital organs.

Therapeutically for the insomnia of nervous women and chlorotic persons, sodium bromide is preferable, since a dose of four to five grammes does not affect either the muscular activity or the intestinal canal, as potassium bromide. If the insomnia depends upon a partial or general congestion of the brain, ammonium bromide is preferable. In epilepsy, potassium bromide has many disadvantages—general torpor, loss of memory, and difficulty of speech. In the dose of four to ten grammes it occasions profuse diarrhea. Of late the three bromides have been given in combination; the advantages in this are as follows: 1. Smaller doses, since the atomic weight of sodium and ammonium is less. 2. More rapid elimination, 3. The depressing action of potassium bromide is less.

In chorea, as a sequel to rheumatism, ammonium bromide is recommended; in chorea, originating from the medulla, sodium bromide; potassium bromide is only indicated in excessive irritation of the muscular tissue.—*The Medical Bulletin.*

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Atropine in Mania.—Dr. J. R. Gasquet (*Lond. Pract.*) finds atropine useful in cases which had been previously benefited by hyoscyamin. He recommends the drug on account of its comparative safety and cheapness.—*Journal of Mental Science.*

The Pathology of the Blood in Inflammation

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THE morphological origin of fibrin formation has been established by Dr. Norris. Of this he has afforded both positive and negative evidence; for he has photographed the invisible corpuscles in the act of becoming fibrin,* and he has also found that a pure filtrate of blood, containing no morphological elements, does not undergo coagulation.† According to Dr. Norris, the cells which become fibrin are the primary lymph cells, the invisible corpuscles (nuclei of the former), and the faintly visible undeveloped red corpuscles (a further development of the second). Partial confirmation of this origin of fibrin formation is adduced by Bizzozero, who ascribes the formation of fibrin to his blood-plates (primary lymph-corpuscle of Norris), and by M. Hayem, who ascribes the same formation to his so-called hæmatoblasts. But both these observers look upon their respective elements rather as determining centers of fibrin formation. That fibrin is present in the inflammatory exudation has been shown by Dr. Burdon-Sanderson, who states that in inflammation of the mesentery the fibrin can be seen on the surface of the membrane.‡ It being established, then, that fibrin is present in inflammatory exudation, and that fibrin is a rearrangement of cells and nuclei of the blood, it follows that in inflammation these fibrin-forming cells and nuclei migrate from the capillaries as well as the leucocytes, and this migration of fibrin-forming elements must be accompanied by an increase of their number in the blood, on the same principle that a migration of leucocytes determines an increase of leucocytes in the blood. The question arises, How are we to know that the fibrin-forming elements are in excess in the blood? Now, there can be little doubt that the hæmatoblasts described by M. Hayem are the granules caused by the disintegration of the undeveloped red corpuscles.|| No one has seen these granules in the circulating blood, but

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* The Physiology and Pathology of the Blood [Norris]. plate xi.

† On the Invisible Corpuscles of Mammalian and Oviparous Blood, &c. The Lancet, Sept. 16th, 1882.

‡ Lumleian Lectures on Inflammation, 1882. Lecture I.

|| The Physiology and Pathology of the Blood [Norris], section iv.

they have always been observed in shed blood. Dr. Norris has shown that human blood examined on the cold stage of the microscope is free from these granules, while it contains them when examined under the ordinary temperature. This is pretty clear evidence that the granules can be formed after the blood is shed. But Dr. Norris has given positive evidence of their formation, for he has photographed the undeveloped red cells in the act of becoming disintegrated. The evidence afforded by micro-photography can not be gainsaid. What can not be discerned by the unaided microscope can be brought out by photography; therefore this kind of evidence is superior, not only in that it reveals objects just as they really exist, but in that it discloses more of them. The fact that these granules are formed after the blood has been shed does not exclude the possibility that they may also be formed in the circulation under pathological conditions; indeed it seems very probable that this does actually take place sometimes, as evidenced by the enormous quantities of granules present in certain states. Whether, however, these granules be found in or out of the circulation, or, as is more probable, under both conditions, it is evident that they are formed from the undeveloped red corpuscles; hence we may fairly take the number of granules as an index of the number of undeveloped red cells, and, as these latter cells constitute one of the fibrin-forming group of cells, we may roughly estimate the number of fibrin-forming elements in the blood by the number of granules present on the microscopical slide.

In acute large abscesses I have sometimes found the granules present in great abundance; at other times, though in excess of the normal, this excess has not been marked. I found in some cases of acute abscesses, where the excess of granules was marked, that after the abscess was opened the granules diminished in quantity, and after a time again increased. This fact is very interesting, as showing that the increase of the granules in inflammation is determined by two principles. In the first instance the determining cause is the same as that which obtained in the cases of leucocytes, namely, a migration of fibrin-forming elements from the capillaries, and a consequent demand by the blood for more of these elements. It may be objected that as no fibrin is seen in pus, therefore there can be no migration of the above elements. Certainly if we examine pus from an abscess we do not find any fibrin in it, but then what about the pyogenic membrane? What is the pyogenic membrane? In the first place it may be remembered that Dr. Burdon-Sanderson has shown that inflammation is not "altered nutrition," as was once supposed, but that it is an "arrest of nutrition"; that it is not a constructive, but a destructive process.* This fact would seem to disprove the idea that the pyogenic membrane is a connective tissue formed during, and as a result of, the inflammatory action; and even supposing that it were a connective tissue, its expansion as the abscess increased in size could not be accounted for, as ordinary connective tissue is incapable of the expansion that would take place in a large increasing abscess. Moreover, if the pyogenic membrane were connective tissue, an abscess could not enlarge, for this tissue would prove an effectual barrier to the migration of leucocytes. The explanation must therefore be that the pyogenic membrane is formed by the fibrin-forming elements which have migrated from the bloodvessels, and become conglomerated together on the surface of the abscess; that it is, in fact, the analogue of the layer of fibrin seen on the inflamed mesenteric surface. In the same manner must be explained the formation of membrane on the inflamed pleura and pericardium. The fact that these membranes often become organized does not destroy the assumption that they are formed from altered elements which have migrated from the blood, for the organization may be effected in the same way as Professor Hamilton describes the organization of a sponge inserted in a wound—viz, by the bloodvessels of the serous membrane being pushed into the substance of the fibrin. Thus we can account for the increase of granules seen in the blood during the active period of abscess formation. When the abscess is opened tension is relieved, and migration is at least partially arrested, hence the decrease of granules in the blood at this stage. But the granules increase again, and this second increase I believe accords with the hæmatoblastic crisis of M. Hayem. M. Hayem has found (and his observations have been confirmed by Mr. Reyne) that about the time of the crisis of acute diseases these granules are increased in the blood, and their excess is ascribed to an effort of nature to repair the blood after the decrease is over.† The state of the system after the healing of an acute abscess is somewhat similar to its condition at the crisis of an acute disease. In either case there has been tissue destruction owing to the high temperature, and therefore in either case a reparation of the blood would be profitable. The reparation of the blood would naturally be effected by an increased discharge of blood elements into the circulation, and as these blood elements would consist of undeveloped red cells, and as moreover one of the stages of the undeveloped red cell disintegrates into granules after the blood is shed, therefore we can easily account for the increase of granules seen in the blood at this period. But the first increase of granules I hold to be determined by a different cause altogether—viz., by the migration of fibrin-forming elements—for this increase takes place during the active period of the inflammatory process, and therefore before the repairing influence comes into force. At the beginning of pneumonia, pleurisy, peritonitis, cystitis, laryngitis and bronchitis I have found an increase of the granule, generally a slight one, and a larger increase I have noticed about the time of the subsidence of the disease. These two increases, running into one another and apparently one, I believe to be as distinct from each other as they are in the cases of acute large abscesses. The reason why the two increases appear to be only one is that the first is generally slight, and a decrease of it would not be easily noticed, and this holds good also for some cases of acute large abscesses. But in those cases of acute large abscesses where the first increase is very marked after the knife has been inserted and tension relieved, the decrease of the granules becomes obvious, as does also the secondary increase which takes place later on. There appears to be thus two ways of increase of granules in the blood in acute inflammation—the first being the manifestation of the supply of fibrin-forming elements of the spleen and probably lymphatic glands consequent upon the demand made by the migration of these elements; the second a manifestation of the supply of blood cells by the same organs, consequent upon the demand made by the system to repair the blood after the disease is over.

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* Lumleian Lectures, 1882. Lecture 1.

† Archives Generales de Medecine, Janvier, 1880, p. 123, Janvier, 1882. p. 104.

In conclusion, I do not mean to infer that the leucocytes of the blood are only increased during the active period of inflammation. It is well known that they are increased in leucocythæmia and after severe hemorrhage, and I have found them increased in yet other conditions. What these other conditions are have yet to be ascertained. I have not a sufficient number of cases to justify me in making any generalization with regard to them, but I claim for the principle enunciated above an important place as an element in the diagnosis of inflammatory lesions, nor do I wish to state that the granules are only increased during the inflammatory process and at the crises of acute diseases. I have elsewhere endeavored to show that causes which interfere with the development of the red cells give rise to an increase of the granules in the blood, the increase in these instances being due, not to an extra supply of cells by the blood-forming organs, but to an arrest of development, whereby a good many cells do not become fully hæmoglobinized red cells, and as a good many of these disintegrate into granules, therefore under these conditions we find the granules in the blood increased in quantity.—*The Lancet.*

Old Lights Newly Snuffed.

BY WILLIAM KENDALL BOWLING, M. D., LL. D.

Professor of Medicine in the Medical Department University of Tennessee, and Ex-President of the American Medical Association.

THE next light of other days which I propose to snuff, is

ALOES.

"Sure to bring on piles." This is the universal verdict of universal ignorance. Says Prof. Cooke, sixty years ago: "A very strange idea prevails that the action of aloes is limited to the lower part of the bowels, and hence it is objected to as likely to produce hemorrhoids. * * * That aloes acts on the rectum alone, is impossible, for it is very soluble in however dry a state it may be; and therefore, must be in a situation to act immediately on being taken into the stomach; that it is brought into a fluid state in the stomach, is evident when it happens to be thrown up a short time after being swallowed. The discharges produced by aloes are also more purely bilious and acrid than those produced, perhaps, by any other medicine, which certainly shows it acts on the upper part of the bowels and the liver."

Prof. Cooke cured dysentery with the "tertiary compound" as well as with ipecac. Both operated on the liver. In quoting Cooke on ipecac, he said dysentery is a form of bilious fever, and is to be treated in every respect as the latter.

We did not know this in 1843, when we published an article on dysentery in the *Western Medical Journal.* We then thought, never having heard Cooke, nor read his works, that we had made a discovery by accident. In 1832 we had visited a negro boy of Mr. Kelly's, in Logan County, Ky., suffering with dysentery. We gave him four Cooke's pills by mistake, out of the wrong box, and left for him a dozen or so more. When at the next stopping place, many hours after, upon looking through our little portable apothecary-shop we discovered our mistake, and if we should live to be a thousand years old, we still should have a vivid recollection of the horror that seized upon our very soul on the discovery that we had given Kelly's negro Cooke's pills in a bloody flux! The cold sweat of anguish dropped from our forehead as we bent over the druggery of the peripatetic practitioner. We knew we had killed the negro, and should never hear the last of it, and in our agony of soul cursed our negligent inattention. All night at home we agonized over the crushing thought of the antipodes of aloes and dysentery! possibly dreamed of an attempt to soothe an inflamed stomach by potations of molten lead! Next day a burly white man from Kelly's plantation hallooed us to our door, whom we no sooner saw than we knew he had come for a coffin for Kelly's negro, and we looked furtively on each side of his mule for the cornstalk measure of the unfortunate sacrifice to misapplied science! He stutteringly informed us that "he had come arter some more of that truck what cured Jim, as big Joe was down and bandy shank Bill was taking on it." Further on in the same year Judge Broadax, who had a large plantation in the neighborhood, told the author that "Cooke's pills would cure flux." Former office students of the author, now of forty years' experience, repeat the saying of the Judge, that "Cooke's pills will cure flux."

Two years ago at a large dining of distinguished doctors, one asked the author if he had not modified his published views of aloes in dysentery. We said we had so far as to yield the paternity to higher authority, Dr. Cooke, of Transylvania, and secondly, to let most cases cure themselves, but held as a *corps de reserve* ipecac and Cooke's pills, for if aloes delights in the rectum, as you doctors will believe, while you know it doesn't, so also does dysentery concede it as the *fons et arigo mali*, and the two should be permitted to fight it out on that line, if it takes them all summer.

Prof. Fordyce Barker, in his delightful classic on "Puerperal Diseases," says: "In the early days of my professional life I was engaged to attend a woman in her confinement, who suffered from obstinate constipation. I prescribed for her Dewees' pills, in which aloes is one of the most prominent articles. At the time of her confinement she mentioned that in her former pregnancies she had suffered very much from piles, but that my pills had cured them. If I had known of her hemorrhoidal tendency I should not have given these pills, and I was therefore quite surprised by her statement, as the result seemed so contrary to all I had been taught. From this time I began to experiment as to the effect of aloes in the treatment of hemorrhoids, associated with constipation, in pregnant women. And for many years past I have constantly made use of this drug for their cure, whether the hemorrhoids were the result of constipation or diarrhea."

"If aloes be applied to an ulcer or excoriated surface, it will act as a brisk purgative, producing stools of the same kind as if administered internally."—Warner. "One part tinct. of aloes and two of soap liniment rubbed for five or ten minutes daily over the abdomen of infants of habitual constipation very effectually keep the bowels open."—Merriman. Lady Webster's pill* owes it medical power alone to the aloes in it. Morrison's pill, a patent pill, swallowed and praised by thousands fifty years ago, was principally of aloes. We have read in Williams' "Principles of Medicine," of a man that took an aloetic pill every day for fifty years, and the "pile pill" of Thomas Hawkes Tanner, pure pepsine 4 parts, aloes 1 part, one every day at dinner, is long before Prof. Barker; so here, as everywhere, is the Dutchman's philosophy cropping out:

Whatever is true is not new,
And whatever is new is not true.

Mr. Aaron Stretch, corner of Spruce and Church Streets, of this city, among the oldest of our apothecaries, and without a superior, makes an elegant oleate of aloes. It is of the consistence of a salve. Five grains of it contain 1¼ grs. of aloes. This amount made thinner by rubbing it up with a little lard, to be applied by gentle friction to the abdomen of costive children is good. Or to constipated children of a larger growth, sick and tired of having their stomachs made storehouses for the outlandish devilments of "chemists," it is good. Squibbs has lately shown us that medical substances, which, as ordinarily combined, find a permanent resistance in the epidermis, as oleates, readily permeate it.

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*As no one pretends now to have a property in this pill, and as it is in universal use, and has no superior, we give the formula:

R. Aloes Opt...dr. iij.
Myrrh.. .
Rhub..aa dr. j.
Syr. Absinth. q. s. Ms. S. div. in pilul. No. LX.
S. One at night.

I quote this remarkable passage from Chapman's therapeutics 52 years ago: "I have lately heard that it is the practice of an eminent surgeon of London to employ aloes for the cure of hemorrhoids. Whether this proceeds from a vulgar affectation of singularity, or that the article really does good, on a principle that a remedy is sometimes found in a cause of a disease, I shall not attempt to decide." Vulgar affectation of singularity! Alas! what is experience? The celebrated Vogel, who trusted nothing else, prescribes a roasted toad as a specific for gout, and a roasted swallow as a prophylactic against angina!—*Southern Practitioner.*

Microscopy.

Binocular Vision in the Study of the Diatomaceæ.

Mr. F. Kitton, at the last meeting of the Royal Microscopical Society, read a paper on the above subject. From the *Royal Microscopical Journal* for February, 1883, we copy a portion of the discussion upon it:

"Mr. Beck said, that with reference to the opening remarks of the author on the value of binocular over monocular vision, he could fully bear out all that had been said. A valuable means of convincing any one who was skeptical on the subject was to be found in a slide of *Aulacodiscus;* and he remembered that when his brother Richard showed this diatom to Mr. Tuffen West for the first time under the binocular, that distinguished draughtsman looked at it for some time in silence, and then jumping up, exclaimed: 'All the drawings of diatomaceæ which I have done will have to be done over again!'

"Dr. Wallich said he could fully confirm the statement that nothing showed diatoms so well as the binocular. Indeed, from a study of these objects, extending over many years, he could say that it was utterly impossible to see them in any other way. In one of the drawings of *Hydrosira* he observed that Mr. Kitton had not noted the unsymmetrical formation, consisting of a little dot, which was generally surrounded by a slight ridge on one side only. It occurred in *Hydrosira* and many of the discoidal forms, and though often seen, he had never yet been able to detect what this peculiar structure was. It would be of advantage if some one would set to work to determine it. It seemed to him to have something to do with the communication between adjacent frustules.

"Mr. Crisp said that Mr. Kitton had proved conclusively the superiority of the binocular, in that he had shown the true form of diatoms, which had previously been misinterpreted by most experienced observers after observation with the monocular.

"Mr. Stewart said that there were still some persons who appeared to think that the binocular was a mere toy. It was, however, of really great importance, especially when working on an exceedingly transparent object, where the inner membranes could be distinctly separated from those above them; or, in tracing out fine nerve fibres, which, passing over or under each other, could be resolved in a way which was entirely impossible by any other means.

"Mr. Beck believed they were only as yet in the infancy of the binocular microscope; and he looked forward to the time when much more attention would be paid to its construction, and particularly to the question of ascertaining the best point at which the prism should be placed to get the full field, without adventitious aid in the way of illuminators, by which improved results would, no doubt, be obtained. He believed that the binocular was the microscope which would be used in the future.

"Dr. Gibbes said he could corroborate all that had been said on the subject of the binocular, and especially its value when used with a $\frac{1}{12}$th. inch in examining those very minute parasites to which his attention had been given, as it enabled him at once to see whether they were outside or inside the tissue."

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WE are in receipt of the *Journal of the Royal Microscopical Society* for February. This is a bi-monthly journal, and is promptly on hand every second month. It varies in size, but never contains less than 144 pages. It is supported by annual fees of Fellows, which are levied for the purpose. Fellows, consequently, are supplied with it without further cost. The price to non-Fellows or subscribers is 5*s.* per number, or 30*s.* a year. To subscribers in the United States the postage is extra.

Gleanings.

Diabetic Coma.—Drs. Foster and Saundby record a carefully studied case of diabetic coma in the *Burmingham Medical Review*, January, 1883. They have summarized their conclusions as follows: 1. Diabetic coma is especially liable to supervene in acute cases in young persons. 2. Diabetic patients and their friends should be warned of the danger of constipation, muscular exertion, nervous excitement, and cold, as probably predisposing causes of death by coma. 3. The discovery of the ferric chloride reaction in the urine should be taken as a warning to look out for the premonitory symptoms of coma. 4. Deep respiration, rapid pulse, and abdominal pain are the earliest premonitory signs of this condition. 5. Cyanosis may be absent in spite of the dyspnœa, and may appear only just before death. 6. Convulsive seizures are not an uncommon occurrence just before death. 7. Diabetic coma, with all its classical symptoms, occurs independently of an excess of fat in the blood, and the pathological value of lipæmia, when present, is yet undetermined. 8. The toxæmic theory, or poisoning by acetone or some nearly allied substance or substances, affords the best explanation of this remarkable group of symptoms.

Poisoning by Ten Grains of Morphia Treated Successfully with Atropia.—A woman having swallowed ten grains of morphia was found one hour later completely unconscious, with feeble and irregular, sometimes gasping respiration, face flushed and cyanotic, eyes injected, pupils moderately contracted, pulse 100. After a few irregular inspirations there was an interval in which breathing entirely stopped for ten or fifteen seconds. A hypodermic injection of atropia (one-thirty-fifth of a grain) was given by Dr. E. Stuver (who reports the case in the *Medical News*), and an hour later another was given of one-fortieth of a grain. After each injection an improvement in breathing and pulse took place, but unconsciousness did not leave her until another hour had passed. With the exception of a sick headache the next morning, she recovered rapidly and without further unfavorable symptoms. The patient was in the seventh month of pregnancy, but did not abort. This case, while it shows that atropia is a useful antidote to morphia, also emphasizes the view that the size of the pupil does not indicate the gravity of the toxic effect of the morphia.

CAFFEINE IN HEART-DISEASE.—Caffeine has been largely employed as a diuretic, but it has been little used for its action on the heart. Lepine asserts that it is capable of producing the same effects as digitalis, over which, in some cases, it has decided advantages. It is, however, necessary to employ it in large doses, from sixty centigrammes to two grammes per day. The effect is more rapid than that of digitalis; in less than twenty-four hours the pulse will fall from 160 to 100 or 80 per minute, and the force of the heart's contractions is increased in just the same way as with digitalis. Caffeine is, however, better borne, and seems to be eliminated more rapidly than digitalis. Among its inconveniences, however, are the occasional production of insomnia and a nervous condition which renders it necessary to suspend it. M. Lepine has never given it for more than ten days. Another objection is its very high price. A Paris physician, M. Huchard, has also praised it highly in the same cases, and in similar doses, especially for its diuretic effect. Coffee is, it may be noted, an old remedy. Zwinger recommended it in 1725 for dropsy, and Honore in 1846 for albuminuria.—*Lancet.*

GIACOMINI'S PROCESS OF PRESERVING BRAINS.—The fresh brain, in its membranes, is placed in a saturated solution of chloride of zinc, in which it floats, and must be turned over two or three times a day. After forty-eight hours, the membranes must be removed, without taking the organ out of the fluid. Allow it to remain in this fluid until it ceases to absorb, as shown by its remaining at the same level, and not sinking; then remove it, and plunge it in alcohol of commerce, where it must remain for a period of not less than twelve days, during which time the spirit should be changed two or three times. When removed from the alcohol, it is to be placed in glycerine of commerce, to which one per cent. of carbolic acid may be added. At first it floats in the glycerine, but, as the spirit evaporates, and the glycerine penetrates it, it gradually sinks to the level of the surface of the fluid, when it may be removed, put aside to dry for a few days, and lastly, coated with several layers of gum-elastic varnish, or marine glue diluted with a little alcohol.—*British Medical College.*

THE ABORTIVE TREATMENT OF GONORRHŒA.—Dr. Watson Cheyne recommends, in the *London Lancet*, a combination of iodoform, eucalyptus oil and cocoa butter, for the cure of gonorrhœa. He makes this combination into rods or solid cylinders four to five inches long, having a thickness of a No. 10 catheter, so that each rod contains five grains of iodoform, ten minims of eucalyptus oil, and twenty-five grains of cocoa butter.

These rods are employed only during the inflammatory state, or within the first seven or eight days of the disease. When used, one of these rods is to be dipped in eucalyptus oil and introduced into the urethra. A pad of boracic lint is then to be applied over the orifices, and over this a large piece of gutta percha tissue; the whole dressing is to be kept in position by straps. In four or five hours the melting of the cocoa butter allows the iodoform and eucalyptus oil to spread over the inflamed surface. Another rod may then be inserted for a similar time. After this a suitable injection may be employed. The iodoform is thought to act beneficially by reason of its germicide properties.

REMOVAL OF GOITRE, WITH A FATAL RESULT.—In the *Deutsche Med. Zeitung*, No. 42, an abstract of a case of extirpation of a goitre, performed by Von Riedel, is given, which is unusual in the fact that symptoms supposed to be due to some affection of the vagus occurred soon after the operation. Aphonia, with rapid pulse and dyspnœa, set in within two hours after the operation. Tracheotomy failed to relieve the dyspnœa. Four days later pneumonia was detected, and the patient succumbed. At the autopsy the recurrent nerves were found to be embedded in blood-clot; there was also commencing suppurative inflammation of the mediastinum and lobular pneumonia. Von Riedel puts the vagus symptoms down to the use of a two-per-cent. solution of carbolic acid with which the wound was washed out. He has seen one other similar case. The facts of the case are interesting, but we think the explanation not free from objections.—*Medical Times and Gazette.*

Renal Surgery.—In its annual retrospect of the advances made in medicine during the past year, *The Medical Press*, December 27, 1882, makes the following comments on this subject: Several operations for removal of renal calculi, and for relief of symptoms set up by presence of pus in the organ, have been recorded, the majority eventuating successfully. Nephro-lithotomy, as performed by Mr. Morris, has been repeated by Mr. Beck, who points out that favorable subjects for the operation should not be too fat, and that when pus in the urine affords indication that the stone in the kidney is setting up irritation, then the time for operative interference has arrived. Mr. Beck repeats what Mr. Morris pointed out in respect to the bleeding from the incised kidney. Though seemingly very profuse for a moment, it is at once and permanently controlled by the pressure of a sponge, and does not subsequently seem to cause embarrassment.

From the numerous cases reported before societies and in journals, in which grave operations on the kidney have been attended with success, it is evident that an increasing feeling of hope as to the consequence of such interference is growing up among surgeons, who will now proceed to cut into or remove a kidney with much less hesitation than would have been shown a few years ago. The most hopeless cases of this kind that are met with now are those extreme examples of degeneration in which the kidney is little more than a sac containing pus, and which yield the least likely of all probabilities of successful removal of the mass. A very considerable number of cases in which operative treatment for removal or evacuation of diseased kidneys has succeeded have been reported during the year, and it is a justifiable conclusion, from consideration of these proceedings, that a much more evident willingness to attempt to give relief to patients by such measures is exhibited now than formerly. In fact, this may be said of surgical operations generally. Many which are now by no means uncommon would have been promptly rejected not very long ago, as involving an amount of risk not justified by the probabilities of success or even of relief to distressing symptoms.

The Advantages of a Dry Local Treatment in Otorrhœal Diseases.—One of the greatest hindrances to cure in an ear disease accompanied by otorrhœa, whether the disease be due to inflammation in the auditory canal or middle ear, is the presence of granulations and polypoid growths. Yet one of the oldest forms of treatment of otorrhœal disease has been by copious syringing and instillation of various fluid medicines. Hence, in such treatment of this class of aural diseases, moisture has been repeatedly applied to, and kept in the ear, a naturally heated locality. Now, as heat and moisture tend to promote granulations and keep up a discharge, it is very apparent that a moist treatment of otorrhœa in many instances has a tendency to keep up rather than to check the morbid discharge from the ear.

On these grounds, therefore, Dr. Chas. H. Burnett, in a paper with the above title, in the *American Journal of the Medical Sciences* for January, 1883, holds that the syringe and all forms of drops should be omitted from the home treatment by the patient in cases of otorrhœa. The most the patient should be directed to do is to dry his ear according to its need, by running into the canal and down to the fundus a twisted pencil of absorbent cotton. The surgeon is to use the syringe only when it is absolutely necessary to remove by it the matter from the ear, and thus prepare the organ for the application of medication by his hand. This latter part of the treatment should consist in the blowing of powders into the ear. Of these, Dr. Burnett recommends one prepared by triturating equal parts of tincture of Calendula officinalis with boracic acid (gr. to minim), allowing evaporation, then rubbing one part of the thus calendulated boracic acid with one or two parts of pure boracic acid. Alum should not be used, on account of its tendency to produce furuncles. Comparative tables are given, which show that by the dry method of treatment the average duration of treatment may be shortened from 212 days under the old plan, to 34 days by the dry method.

RULES FOR EXAMINATION OF URINE.—During a private lecture on the pathology of renal diseases, Dr. Formad gave the following practical points as "rules for examination of the urine:"—

1. Sediment in the urine has no significance unless deposited within twenty-four hours.

2. Albumen in the urine does not indicate kidney disease unless accompanied by tube-casts. The most fatal form of Bright's disease—contracted kidney—has little or no albumen.

3. Every white crystal in urine, regardless of shape, is a

phosphate, except the oxalate of lime, which has its own peculiar form, urine alkaline.

4. Every yellow crystal is uric acid if the urine is acid, or a urate if the urine is alkaline.

5. Mucus, casts, pus, and epithelium signify disease of the bladder (cystitis) or of other parts of the urinary tract, as determined by variety of epithelium.

6. The urine from females can often be differentiated from the urine of the male, by finding in it the tesselated epithelium of the vagina.

7. Hyaline casts (narrow), blood, and epithelial casts signify acute catarrhal nephritis. Much albumen.

8. Broad hyaline casts and epithelial dark granular and oil casts signify chronic catarrhal nephritis. At first, albumen; later, less.

9. Hyaline and pale granular casts and little or no albumen signify interstitial nephritis.

10. Broader casts are worse than narrow casts, as far as diagnosis is concerned, for the former signify a chronic disease.

11. The urine should be fresh for microscopical examination, as the micrococci will change hyaline casts into granular casts or devour them entirely in a short time.

12. Uric acid in the urine may, in Trommer's test for sugar, form a protoxide of copper, thus often deceiving the examiner in the belief that he has discovered sugar. Thus, when urine shows only a trace of sugar, other methods of examination, besides the Trommer's, must be used—preferably the lead test.

13. The microscope gives us better ideas of the exact condition of affairs in the examination of urine than the various chemical tests. Therefore the time has come when every true physician should know how to handle a microscope.—*Louisville Medical News.*

THE ANTISEPTIC AND PHYSIOLOGICAL ACTION OF RESORCIN.—From some experiments made by Dr. W. B. Platt (*American Journal of the Medical Sciences*, January, 1883), it appears, taking the minimum time in each series, that bacteria developed in 20 c. c. of urine exposed to favorable conditions, and that 0. 050 grm. of resorcin has no appreciable influence, bacteria developing within eighteen hours.

Twice that quantity (0. 103) kept urine free from bacteria twenty-four hours, six hours longer; while 0. 150 deterred their development to four days, urine without any addition showing bacteria within eighteen hours.

If urine be boiled, organisms are found usually considerably later, forty-six to sixty-five hours.

0.050 gramme of carbolic acid hinders development of other living organisms (large enough to be detected by a power of 550 diameters) in boiled urine at least twelve days, bacteria eighteen days, the usual bacillus not developing at all. While 0.150 of resorcin (about two and a half grains) hinders development of bacteria four days, one-third that amount of carbolic acid preserves a similar amount of urine free from organic life, under similar conditions, three times as long.

Experiments made to determine the physiological action of resorcin, showed that in several warm-blooded animals it caused—1. Restlessness and trembling. 2. Rapid respiration very early in rabbits. Early and very marked after a lethal dose in one dog, later after a lesser, but fatal dose, in another. Not marked after non-lethal doses. 3. Staggering, unsteady gait, loss of co-ordination, especially in hind limbs, present early in all the animals excepting one rabbit where a small dose was exhibited. 4. Twitching of muscles, especially of hind limbs, constant in all. 5. Clonic contraction of nearly all flexors and extensors of body, more especially of those attached to the pelvis and shoulder. 6. In the animals that died, the imitation of the natural running or hopping movements before death, as the animal lay upon its side, was striking.

PUERPERAL FEVER.—In the *Edinburgh Medical Journal* for October is contained an interesting and short paper by Mr. John Lowe, on "Puerperal Fever; its Treatment and Prevention," in which occurs the following judicious expression of views in regard to treatment:

"I am strongly of opinion that by early and repeated aseptic intra-uterine injections, a rapidly acting cholagogue, washing out the bladder, if necessary, with some aseptic solution, and the timely and liberal use of stimulants, will avert death in many instances. It is no use giving the nurse instructions to wash out the uterus; we must do so ourselves by means of a long tube in the uterine cavity itself. Ammonia and brandy I regard as the medicines for the disease; indeed, when food is refused, brandy is not only most grateful to the patient, but is peculiarly well adapted to supply the place of ordinary food, and no amount of fever or other symptom contraindicates stimulation when changes so destructive to the vital fluids and tissues of the body are in terribly rapid progress. To give aconite or veratrum viride in such cases is, in my opinion, as unscientific as it is useless; and yet these remedies have been vaunted and are actually used by men of undoubted ability and eminence. To get rid of a fermentative poison from the blood, we must adopt some such practice as I have indicated, and not stop to theorize about the physics of the circulation. We must, in other words, support vitality and eradicate the poison. That salicylates and sulpho-carbolates taken internally do not rectify the turbid urine in puerperal fever I am convinced from experience; and I would strongly urge that all depressant remedies are both hurtful and dangerous."

The use of carbolic spray, and irrigation of the uterus and vagina with carbolic solution, immediately after labor, are considered important means for the prevention of puerperal septic poisoning.—*Am. Med. Digest.*

A New Operation for Spina Bifida.—At a recent meeting of the Leeds Medico-Chirurgical Society (*British Medical Journal*, December 30, 1882), Mr. Robson showed a child six weeks old, upon whom, when six days old, he had performed a new operation for spina bifida. The redundant parts removed by the operation were also shown. After the removal of these parts and after stitching up the arachnoid over the spinal canal, periosteum from a rabbit was inserted between the meninges and the skin so as to cover the gap in the bones. The wound had perfectly healed; the skin over the lumbar region was quite level; there seemed to be no tenderness on pressure: the child looked strong and healthy. The sac was found to be of the size and shape of half a swan's egg; the wall consisting of true skin and subcutaneous tissue lined by serous membrane. At one point the sac was very thin and transparent, appearing to consist only of the serous membrane covered by a thin layer of epidermis, when fresh minute blood-vessels could be seen to ramify over it. Mr. Robson drew attention to the following points: 1, the operation was performed with full antiseptic precautions, eucalyptus air being used instead of carbolic spray; 2, the meninges were closed by uniting the serous surfaces, as in peritoneal surgery; 3, the transplantation of living periosteum and its continued vitality; it had not yet, however, formed new bone, but already the covering of the canal had a greater than mere skin-firmness; 4, the entire absence of bad symptoms in the child, operated upon at so early an age, was noticed.

Large Doses of Alcohol in Scarlatina.—At the last meeting of the Academy of Medicine of Cincinnati, O., Dr. Giles Mitchell reported forty-three consecutive cases of scarlatina treated with large doses of alcohol, without a single death. The quantity of alcohol given in some cases was enormous. To a patient two years old a half-ounce of whisky was given every hour for a number of days, without having any other than a favorable effect, and without producing any symptoms of alcoholic intoxication. The doctor claimed that when this treatment was instituted, the disease had always pursued a more favorable course, hyperpyrexia being neither so frequent nor so prolonged, nor were renal complications so likely to ensue. In case the kidneys became affected, the alcohol was still pushed, and the complication fully relieved. If the temperature was high before the administration of the remedy, it would rapidly fall below the danger-line after the treatment was instituted. The report of Dr. Mitchell called forth a lengthy discussion from the members of the Academy. Prof. Whittaker thought that the favorable influence exerted by the remedy was due to its antimycotic properties. He had no doubt that the brilliant results obtained were due to the antiseptic and parasiticidal properties of alcohol, as manifested in these cases by the destruction of the germ of scarlatina. Prof. Reamy was a firm believer in the efficacy of large doses of alcohol. He attributed its good effects rather to its influence in preventing tissue-metamorphosis, to its value as a food, and to its antipyretic action.—*Philadelphia Medical Times.*

Histological Changes in the Skin in Measles and Scarlet Fever.—Neumann states that the principal changes in the skin in these diseases are met with in the glands and blood-vessels. The latter are dilated and surrounded by a cell prolaferation which even accompanies the capillary loops in the papillæ. Similar changes are observed in the sweat-glands, although the surrounding cutaneous tissues are free from the infiltration. About the sebaceous glands the new growth is deposited chiefly at the under part. It never is found within the walls of the glands. The arrector pili muscle is always infiltrated. In scarlet fever the cutis and epidermis also participate in the inflammatory process. Clinically, it is important to remember that this round cell exudation extends even into the horny layer of the epithelium. The epidermis presents numerous cracks and fissures which seem to be filled with round cells and blood corpuscles. In like manner the cuticular fibres are compressed by the new growth, and in places are dislodged by aneurismal dilatations of the blood-vessels. The contagious properties of the epithelial scales are due, the author believes, to the above-mentioned changes in the epidermis. — *Wiener Med. Wochenschr.*, November 18, 1882.

Atropia for Earache.—The most effectual treatment, and the one which has stood the test for years, says Dr. A. D. Williams, in the *Chemist's and Druggist's Bulletin*, is the local application of a solution of the sulphate of atropia. Not a single case but has yielded at once. The solution is to be simply dropped into the painful ear and allowed to remain there from ten to fifteen minutes. Then it is made to run out by turning the head over, then being wiped with a dry rag. The solution may be warmed to prevent shock. From three to five drops should be used at a time. The strength of the solution must be varied according to age of the child. Under three years, one grain to the ounce, and over ten years, four grains to the ounce of water. In grown persons almost any strength may be used. All ages will bear a stronger solution in the ear than in the eye. The application should be repeated as often as may be necessary. Usually a few applications will stop the pain. In acute suppurative inflammation of the middle ear, and acute inflammation of the external meatus, atropia will only slightly palliate the suffering, but in the recurring nocturnal earaches of children it is practically a specific.—*Medical Record.*

The Maternite Hosiptal in Paris.—The most successful results ever attained in the Maternite Hospital, Paris (a mortality of only three-quarters of one per cent.) have been reached in the new pavilion, of which M. Tarnier says:

Each patient there has a separate room, entered from without, so that a nurse can only pass from one to another by going outside into the open air. The furniture is of japanned iron; the floors, walls, and ceilings are of impermeable concrete. The mattresses and pillows are stuffed with cut chaff, which is burnt after use in every single case. For the McIntosh sheet is substituted one of brown paper, made impermeable by pitch; this is burnt after use. For the washing of the genitals weak solutions of bichloride of mercury are employed, as being the best and most powerful germicide.

The same enthusiastic accoucher has invented a sort of incubator in which babies of an age heretofore considered nonviable are placed. This machine consists of two compartments, the lower containing hot water to furnish the heat, the upper for the reception of the child, where he is enveloped in cotton and under a glass cover. The results are said to be very encouraging.—*Boston Medical and Surgical Journal.*

Blenorrhagic Pleurisy.—Several years ago Dr. See observed a case of gonorrhœal rheumatism, complicated by pleurisy. To his mind the pleurisy was evidently due to the venereal disease, since the two inflammations, arthritic and pleuritic, commenced at the same time and without any previous exposure on the part of the patient. Quite recently he saw another instance of this rare complication of gonorrhœa *Journal de Medecine*, December, 1882). This was the case of a young man twenty-five years of age, who had contracted a gonorrhœa some three months previously. He was suddenly taken with chills, followed by pains in his side, fever and dyspnœa. Pressure upon the sides of the thorax induced the most acute pain. Upon his admission into the hospital, he showed evident signs of pleuritic effusion with extreme dyspnœa. He was not benefited by hypodermics of morphia. A hypodermic of nitrate of pilocarpine, however, gave an excellent result. Dr. See insists that the thoracic pain and the general instead of the local disorder is sufficient to establish a diagnosis of true gonorrhœal pleurisy.

Important for Smokers.—In the chemical laboratory of the Board of Health, in Bremen, Dr. Kissling (*Deutsche Medizinal Zeit.* Aug. 7, 1882), has made investigations in regard to the danger of smoking cigars. It would lead us too far were we to publish his careful experiments and analyses in detail, but we will give our readers the results of the same: As grave poisons he found carbonoxyd, sulphuretted hydrogen, prussic acid, picrolin bases and nicotin.

The first three can not come into consideration, as they are too volatile, and present in too small quantities. Regarding the nicotin, however, he found that a very small trace only is burned up by the smoke, but that the stump becomes the richer in this narcotic substance, the larger the cigar is, the more the end is chewed, the shorter the stump gets, and the oftener the cigar is lit. Conclusion: To avoid all danger, smoke a cigar not too thick and long, don't chew the end, smoke only two-thirds of every cigar, and throw it away as soon as relighting becomes necessary. Never smoke a cigar after it has once gone out. *Cigarettes are the least injurious* of all tobacco smoking.—*Medical and Surgical Reporter*.

Removal of a Bean Piecemeal from the Ear.—Dr. T. Y. Sutphen, of Newark, N. J., sends us an account of a case illustrating the difficulties and accidents in removing foreign bodies from the external auditory meatus. A boy, eight years old, was brought to Dr. S. with a common white bean in his ear, which he had placed there two weeks before. Attempts had been made by others to remove the body by the use of the syringe and instruments. These had only resulted in injuring the canal, which was swollen so as to hide the bean from sight. There was muco-purulent discharge from the ear. The boy was etherized, and an attempt was made to remove the body with a syringe, but it failed. The ear was then syringed with warm water, for four days, which reduced the swelling somewhat. The bean could be seen, and was immovably impacted. With a lance-shaped paracentesis needle, the bean was broken up, with the help of a bent probe, and removed.

The Treatment of Intussusception.—In the September number of the *New York Medical Journal and Obstetrical Review*, Dr. W. R. Gillette, Physician to Bellevue Hospital, relates a case of intussusception in a child nine months old, relieved by injections of water, the administration of chloroform, by inhalation, and manipulation of the tumor felt through the abdominal wall. This, he states, is the third case of intussusception in infants which he has seen, and which he has been able to reduce by these means. He thinks that these cases, from the philosophy of their condition, and the necessary measures for relief, are best managed in the way indicated. In two other instances, in which he saw and advised this treatment, reduction was utterly impossible under the other methods tried. The children in each of these cases were held while struggling, and the injections forced into them against all voluntary and involuntary efforts which they could make. He deems the administration of chloroform almost absolutely necessary in these cases.

Lymphadenitis of the Conjunctivæ.—Dr. W. Goldzieher, of Buda-Pesth, Hungary, recently removed from the conjunctival cul-de-sac of a fourteen-year-old boy a hard, painless tumor the size of a filbert, On the surface of this growth were to be seen yellowish, cheesy-looking plaques, which apparently penetrated into the depth of the tumor; whilst in other places small, round grayish nodules could be made out through the translucent mucous lining. There was a family history of scrofula. Dr. G. first thought that it was a case of tuberculosis of the conjunctiva, but the microscopic examination of the specimen showed that it was an enlarged lymphatic gland. The existence of lymph-follicles in the normal conjunctiva, though vouched for by some microscopists, has been strenuously denied by others. The present case would seem to afford corroborative evidence of the real presence of these conjunctival follicles.—*Centralblatt fur Praktische Augenheilkunde.*

Therapeutics of Anemia.—In his Gulstonian Lectures upon Anemia, Dr. Sidney Coupland showed that iron acted with great rapidity in enriching the blood with corpuscles. He has found arsenic in some instances more efficacious than iron, and as a hematinic ranks it next to that metal. Phosphorus had been given with benefit to a case of idiopathic anemia. Quinia, strychnia, and the mineral acids were of value as aids to iron. Manganese is a dead failure. Oxygen increases appetite and assimilation, but it is not hematinic directly. Transfusion, as a last resort, must be used in pernicious anemia before the patient is very far gone. He thought well of the use of defibrinated blood by the rectum systematically.—*Louisville Med. News.*

Treatment of Still-born Infants.—The *London Medical Record* gives an abstract of a report by Dr. Ruzanovsky on this subject. Dr. R. tried all the usual methods in a case of asphyxia neonatoria unsuccessfully, when he resolved to try hot water as lately recommended by Dr. Le Bon. The infant was immersed in very warm water, leaving free the head alone. One minute afterwards (eighty-seven minutes after birth) the first inspiration was made and the child's life saved.—*Obstet. Gaz.*

Book Notices.

Experimental Pharmacology. A Hand-Book of Methods for Studying the Physiological Actions of Drugs. By L. Herrmann, Professor of Physiology in the University of Zurich. Translated with the author's permission, with notes and additions by Robert Meade Smith, M. D., Demonstrator of Physiology in the University of Pennsylvania. With 32 illustrations on wood. 12mo. Pp. 201. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: R. Clarke & Co. 1883. Price, $1.50.

"Pharmacology, in its widest scope, embraces the study of drugs from all possible points of view, and the information thereby acquired may be useful under the most diverse conditions: to the physician, to enable the recognition and proper treatment of cases of poisoning, or to permit of the use of drugs for therapeutic purposes; to the public, to permit the avoidance of noxious substances; to the physiologist and pathologist, to enable the application of information derived from the study of the action of poisons, to the advancement of their sciences. The study of pharmacology can therefore be limited according as one or more of these points of view occupy the first place in the mind of the investigator. The public desires to know only what substances are poisonous, that they may be avoided, while their *modus operandi* is a matter of indifference. Those poisons which are useful at the bedside will prove most interesting to clinicians."

This manual is for the purpose of instructing those who are engaged in the study of the physiological action of drugs, the *modus operandi* of proceeding. It teaches what instruments are necessary, and how to make use of them. It is just the work for one engaged in original research, and will be found very valuable to all physicians; for there is in it a large amount of physiological information that is not to be found in ordinary works on physiology. The translator has added very considerably to the work—probably a third.

At the outset of the work, the author and translator describe a number of curious physiological instruments that the investigator will need in his investigations, and give cuts of some of them. It is described how blood may be drawn from a vessel without exposure to air; how alterations upon the red corpuscles of the blood may be studied, also upon the white corpuscles; how to make examinations of muscular irritability, etc. After explaining many such investigations, too many for our space to recount, the classes of animals are described upon which it is best to make particular examinations. In making a selection of animals upon which to observe the actions of a particular drug, a number of conditions must be observed in determining the kind. Frogs may be the best for some purposes, rabbits for other purposes, etc.

The little work is worth the study of all students of physiology.

THE SYSTEMATIC TREATMENT OF NERVE PROSTRATION AND HYSTERIA. By W. S. Playfair, M. D., F. R. C. P., Professor of Obstetric Medicine in King's College, etc. 12mo. Pp. 111. 1883. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: R. Clarke & Co. Price $1.00.

A work by such a distinguished medical writer as Dr. Playfair needs no commendatory notice. It is enough to know that he is the author of a work to feel confident that it is one of value. A man of his learning, great experience, and extensive observation, could not be expected to put forth an inferior work.

The work before us is very small in size, as will be noticed, but it treats upon a very important subject, and notwithstanding its smallness treats it very exhaustively. Said a patient, as quoted by Dr. Playfair:

> "Ah! then confess there is yet to find
> The remedy for suffering of this kind.
> Do you not think a cure for every ill
> That is not mortal there may yet be still,
> Though 'tis not found by means of drug or pill?
> Lend me your books; by study try will I
> To find the undiscovered remedy."

And we will here say that Dr. Playfair is of the opinion that he has been able to unfold, in these pages, a method of cure that will undoubtedly succeed in many cases which physicians have been too much in the habit of abandoning in despair.

What more difficult cases to treat than those of Nerve Prostration and Hysteria? Who, then, will not welcome such a work as Dr. P's, which promises relief? The work only costs a dollar, and surely the demand for it will be very great.

ILLUSTRATED CATALOGUE OF SURGICAL INSTRUMENTS AND APPLIANCES, GALVANIC BATTERIES, TRUSSES, SUPPORTERS, ETC. 1883.

The above is a catalogue of 194 pages by Spencer & Crocker, Surgical and Dental Instrument Makers and Sellers, of 117—121 W. Fifth Street of this city. The catalogue contains cuts and descriptions, with prices attached, of all instruments used by surgeons, physicians, and dentists. Messrs. C. & S. keep on hand all new inventions and novelties. Their catalogue is exceedingly valuable for reference.

Editorial.

NOTICE.—We hope our friends will not forget that the MEDICAL NEWS has entered upon another year, and that the subscription price for the same is now due. The MEDICAL NEWS is the cheapest medical monthly published in this country; and containing, as it does, each month, so large an amount of valuable reading matter, it should be promptly paid for. It aids the practitioner in practicing his profession, furnishing him the results of the researches of investigators, and of the observations and experiences of the most distinguished medical men of the world, thus better qualifying him for the discharge of his duties, making him a more skillful physician, and causing his services to be more sought for.

The earlier in the year the subscription price is remitted to us, the more valuable it is to us. We hope that all who are indebted to us will remit soon.

We regret to say that quite a number are indebted to us to a large amount. They give no attention to bills sent them; dunning letters, etc. We fear that if some of these do not soon settle up, we will be under the necessity of adopting some method to secure payment that will be exceedingly disagreeable to them. There is such a thing, so we have been informed, as "patience ceasing to be a virtue."

REJECTED MEDICAL COLLEGES.—The Illinois Board of Health, from which all practitioners of medicine in the limits of the State of Illinois must obtain licenses to practice, has refused to recognize the diplomas of the following colleges:

American Eclectic Medical College, Cincinnati, O.; American Health College, Cincinnati, O.; American University, Philadelphia, Pa.; College of Physicians and Surgeons, Buffalo, N. Y.; College of Physicians and Surgeons, Joplin, Mo.; Edinburg University, Chicago, St. Louis and elsewhere; Hygeo-Therapeutic College, Bergen Heights, N. J.; Eclectic Medical College of Pennsylvania (late issue); Joplin Medical College, Joplin, Mo.; Livingston University, Haddenfield, N. J.; New England University of Arts and Science, Boston, Mass., and Manchester, N. H.; Northwestern Medical College, St. Joseph, Mo.; Penn. Medical University, Philadelphia, Pa.; Philadelphia University of Medical and Surgery, Philadelphia, Pa.; Physio-Eclectic Medical College, Cincinnati, O.; Physio-Medical College, Cincinnati, O. (late issues); St. Louis Eclectic Medical College, St. Louis, Mo.; St. Louis Homeopathic Medical College, St. Louis, Mo.

Several of the colleges credited to Cincinnati we have never heard of. One of them may be a college that one Campbell, a notorious quack, was advertising a few years ago. In his advertisements, we recollect, that he did not require attendance in person at his pretended college, but, on payment of the fees, agreed to superintend studies and give instructions by correspondence. When the student had finished the course of studies, he proposed to conduct the examination by letter. This is a positive fact. We have not heard anything of his school for some time; but it may be that he continues to send out his circulars in a private way.

One of the Physio-Medical Colleges is probably a pretended School of Alva Curtis, now dead, who was a well-known doctor of the Thompsonian creed in Cincinnati for a period of thirty years or more. Notwithstanding that Curtis was a noisy quack, yet he possessed considerable education, and was regarded a good writer. His favorite topic in writing was medicine, yet he wrote on many scientific subjects for both newspapers and scientific journals. He alone composed his school. He was the Faculty, Board of Trustees, etc. But as he is now dead, he is issuing no more diplomas.

THE TOMB OF JOHN HUNTER.—A correspondent of the *Courier Journal*, of St. Louis, recently visited Westminster Abbey, which has the tomb of the greatest surgeon that ever lived. The correspondent says that the tablet, a memorial one, marking the tomb, is of granite, set into and even with the stone pavement of the north aisle of the nave, inlaid with brass letters and ornamentation. The inscription reads:

Beneath are deposited the remains of John Hunter, Born at Long Calderwood, Lanarkshire, N. B., on the 13th of February, 1728; died in London on the 16th of October, 1793. His remains were removed from the Church of St. Martin's in the Fields to this Abbey, on the 28th of March, 1869. The Royal College of Surgeons have placed this tablet over the grave of Hunter to record their admiration of his genius as a gifted interpreter of the Divine Power and Wisdom at work in the Laws of Organic Life, and their grateful veneration for his services to mankind.

The same correspondent describes the Royal College of Surgeons; and for the information of those of our readers who do not happen to be informed in regard to it we will glean some of the facts stated.

The Royal College of Surgeons took its birth about 1470, Edward IV issuing letters patent to the Mystery of Barbers. Henry VIII united the companies of Barbers and Surgeons; and so changes went on until the present organization was patented in 1800. This institution is not a college in the sense in which we use the word, for it does not instruct students—it confers degrees on those who have been elsewhere educated. The institutions that afford instruction are the medical schools, which in London are 13 in number, and are connected invariaby with medical hospitals.

In order to become a member of the Royal College of Surgeons, the pupil is required to pass preliminary and graded examinations, to spend four years in medical study, including bedside instruction and service as a hospital dresser, and to pay fees amounting to $670, of which $550—average—goes to teachers, and $120 to the examiners. To become a Fellow R. C. S. two more years of study are required, and $80 additional fees, with another satisfactory examination. To instance the severity of the examinations, it is stated, that one-third or more of the applicants fail to pass, and may be remanded for further study.

EXTRACT FROM THE MANUSCRIPT OF DR. MUDD.—Our readers remember Dr. Mudd, who was tried among the conspirators who had aided in the assassination of President Lincoln. The poor doctor had dressed the leg of the wretched Booth, who had shot the President through the head, but, at the time of doing so, he was entirely ignorant of the terrible crime which Booth had committed but a few hours before, having been told by the assassin that he had injured his leg by having been thrown from his horse. He had no more sympathy for the horrid murder than the purest patriot of the land. When Booth presented himself at his house, badly hurt, and evidently suffering exquisitely, he did just what any other humane physician would have done—dressed his fractured limb. After he had rendered appropriate professional services, as he had no reason to disbelieve the accident to Booth had happened in any other way than he had told him, he let him go. But in a very short time, cavalry men, who had been sent out to scour the country to apprehend the fleeing assassin, presented themselves, and finding a bootleg in the house having on it the name of Booth, he was dragged by a rope fastened to the horn of a saddle to Washington. On foot, for many miles, he was compelled to keep up, over the roughest roads, with the horseman to whose saddle he was tied.

In dressing the leg of Booth, in consequence of not being able to remove the boot, because of the swelling and extreme tenderness, he had cut away a portion of the bootleg, and it was this part of it, tossed aside, that had the assassin's name on it, and led to the arrest of the poor doctor.

So great was the excitement that followed upon the assassination of Lincoln, that not a few vile persons took advantage of it to obtain places and get money by implicating persons entirely innocent of any complicity in it. Under the circumstances, it was not difficult to perpetrate the miserable crime upon Dr. Mudd that was perpetrated. It is greatly to be regretted that the perpetrators can not now be reached and punished as they ought to be. But we must proceed to give the extract from his Mss. we set out to do. It will be remembered that Dr. Mudd died a few weeks ago. He left in manuscript a treatise on epidemic diseases, from which is extracted the following allusions to his sufferings, which is heart-sickening.

"In July, 1865, I was sent a prisoner for life to the military prison at Fort Jefferson, better known as the Dry Tortugas, an island of coral formation in the Gulf of Mexico. Tried by a court-martial, an unlawful tribunal constituted for the purpose of conviction, the same that hanged an innocent woman, I was convicted on the testimony of paid and perjured witnesses of a crime the conception of which I never harbored or entertained. By such a tribunal I was pronounced guilty of complicity in the assassination of President Lincoln, when all the world knew, and the members of that iniquitous and law-defying military commission knew it as well, that my only offense consisted in setting the leg of a man whom I did not at the time know to be a fugitive from justice, and with whose insane act I had not the slightest sympathy. I had done merely an act of charity, from which no true physician would shrink, no matter what the consequences might be. For this I was banished under a life sentence from my wife and children, from home, friends and society, and immured in the gloomiest and most distant prison in the United States. For this I was bound in chains like some savage brute, denied for a long time healthy sustenance, and forced at the point of the bayonet to perform menial and offensive offices, which I will forbear mentioning. The iron entered my soul. Even now, though on restoration to my family and social circle, I am brought back to life and some portion of all that was lost by four years of banishment, the recollections of those years of mental and physical sufferings and the nature of what I endured on that barren coral reef, accursed and plague-smitten, rise before me at times like a horror of great darkness, and will never be effaced as long as memory remains."

Microscopic Examination of the Blood In Yellow Fever.—Dr. H. D. Schmidt, of New Orleans, in his work on Yellow Fever, published in 1881, describes his examination of the blood of persons suffering with Yellow Fever. His microscope was in the ward and placed so as to obtain the best light, with everything required for the examination, such as glass slides, covering glasses, etc., in perfect order and readiness. The blood was obtained by making a small incision into the forearm. The first drop was wiped away, and the blood used that next made its appearance. We copy his account as follows:

'"Previous to these examinations of the blood of the living patient, I had observed in some sections of liver and of some other organs, taken from yellow fever cases, extravasations of free hemoglobin from the capillary vessels, and its absorption by the surrounding cells; and, in accordance with this observation, I somewhat expected to meet with free hemoglobin in the blood itself, supposing its escape from the colored blood corpuscles to be caused by the action of the specific poison of the disease upon the latter. And, by coincidence, I really found in the first specimen which I examined some of this coloring material, which, however—as must be remembered—is a phenomenon not unfrequently met with, even in the examination of normal human blood. In this specimen, moreover, I observed that the greater portion of the colored blood corpuscles presented mulberry and thorn-apple forms, while the rest was rapidly assuming them. In all other respects, with the exception of a few microsytes, the blood appeared perfectly normal. *Not a single bacterium, or spore of a fungus,* was I able to discover though I honestly endeavored to do so. In the next specimen of the blood which I examined, and which was obtained from the same patient and from the same incision, I did not even meet with the free hemoglobin. But, as in the first specimen, in this also, the greater portion of the colored blood corpuscles had already assumed the mulberry or thorn-apple forms when first seen under the microscope, while the rest was undergoing these changes quite rapidly.

"In this manner, I examined the blood of *fifteen* living patients, representing the different stages of the disease; that is, from the second day to one-half hour before death, or to convalescence. Two specimens of blood were examined in each case; in some even as many as three or four, but on different days. In all the cases, with the exception of two, the blood corpuscles presented the mulberry and thorn-apple forms adhering frequently to each other in the form of rolls, forming irregular anastomoses."

At another time we will resume the relation of Dr. Schmidt's microscopical examination of the blood in cases of yellow fever.

The Sequel of a Memorable Operation.—A few days since Prof. W. H. Pancoast, says an exchange, at a clinic in the Philadelphia Hospital, introduced a young man who was once the subject of a remarkable surgical operation, being the separation of an infant from a monstrosity which was virtually another chaotic fœtus developed from his cheek. The person referred to was G. W. Lytle, a young man of twenty-four, residing at Cornellsville, Pa. His only peculiarity was a deep scar on the left cheek. Dr. Pancoast then gave the class an account of the operation, of which there had been but three performed, one each in London, Paris, and Philadelphia, and which consisted in cutting apart two children who were congenitally attached. The operation was performed twenty-four years ago, by Prof. Joseph Pancoast, when the young man at the clinic was an infant of seven months. The child was born with an appendage growing from the left cheek, which was nothing else than an imperfectly developed infant, with hands, feet and trunk, but no head. The operation was performed at a clinic in Jefferson Medical College, and was witnessed by many of the prominent physicians of the city. The operation was fully described in the *Medical and Surgical Reporter* by Dr. R. J. Dunglison. It was considered bold surgery, but Dr. Pancoast was confident of its propriety, and accordingly performed it, with what success was shown by the presence of the patient himself, nearly a quarter of a century later. An interesting feature of the operation is its having been performed with the ecraseur, then a new instrument, and the first of the kind ever used in America, and brought from Europe by the elder Pancoast. Upon dissection the monstrosity was found provided with heart and gastro-alimentary tract, as well as the organs already referred to. The case attracted considerable attention abroad, and at the request of the eminent English surgeon, Sir James Paget, a cast of the detached mass and a photograph of the child before the operation were furnished to the museum of St. Bartholomew's Hospital.

SIR WILLIAM THOMPSON ON THE SIXTH SENSE.—It is announced that the distinguished physicist, Sir William Thompson, ascribes to man six senses, namely, those of *force*, heat, sound, light, taste and smell.

We apprehend that this announcement comes rather late in the day, says the *Record*, as American text-books have for some time past taught this doctrine. As an instance we may mention "The Human Body," by Dr. H. Newell Martin, of the Johns Hopkins University, published in 1881. In this work Dr. Martin states, "We commonly distinguish five senses, those of sight, sound, touch, taste and smell," and he then suggests that "temperature" should be added.

THE COMMENCEMENT EXERCISES OF THE CINCINNATI COLLEGE OF MEDICINE AND SURGERY.—The Commencement Exercises of the Cincinnati College of Medicine and Surgery were held on Tuesday evening, February 27th, in the Amphitheatre of the College building. They closed the forty-eighth regular session. The very large room was packed with ladies and gentlemen, the friends of the College and of the graduates.

Many of these presented numerous floral offerings to the young gentlemen of the class. The printed programme for the evening read as follows:

Prayer by Rev. W. F. Mitchell.

Remarks by the Dean, Prof. R. C. S. Reed, M. D.

Conferring of Degrees by the President of the Board of Trustees.

Valedictory address by Prof. Wm. Judkins, M. D.

Benediction.

After the exercises had been opened as arranged, the Dean addressed those present. He briefly reviewed the history of the institution and stated the new features of the College for the next session. Professor Reed paid a high compliment to the graduating class, declaring that it was, beyond doubt, one of the best classes that had ever left the College.

The Degree of M. D. was conferred upon the following gentlemen:

James T. Ball, Indiana.
James Becket, Kentucky.
John Bohlander, Jr., Ohio.
J. L. Benedict, Indiana.
Abraham Elder, Ohio.
Charles M. Faulkner, Ohio.
Levi Gardner, Ohio.
William Haffner, Ohio.
J. F. Henry, Oregon.
Gainor Jennings, Ohio.
F. W. Rose, Ohio.
Carter Simpson, Kentucky.
W. E. Swank, Ohio.
W. F. Taylor, Kentucky.
Wm. Wickham, Pennsylvania.

Prof. William Judkins, M. D., delivered the valedictory, in opening which he recommended the graduating class to the public at large, announcing that he was satisfied that all the members were competent to treat the most vital medical issues submitted to them. Addressing himself to the class, the Professor cautioned the graduates to "hurry slowly," and pointed out to them the importance of the profession into which they had but entered. He endeavored to impress upon their minds that, notwithstanding their long and tedious studies, they had just commenced. The way, he said, was open to greatness and fame, which, however, he said, could only be achieved by hard and incessant work. He urged them to make investigation, because they owed it to themselves, their profession, and humanity. In their intercourse with their patients he enjoined them to keep in mind the advice of Polonius to Laertes, "This, above all, to thy own self be true, and it shall follow as the night the day, thou canst not be false to any man." After giving further counsel and advice, he closed by urging them to weigh carefully each step, and to consider the intercourse between themselves and patients as the most secret and holy, after which he bid the class farewell on the part of the faculty.

F. W. Rose responded in behalf of the class, thanking the faculty for the efforts they had put forth to give the class a fitting education, and pledging to the College their hearty support in the future.

The exercises were closed by the Rev. Mitchell, who dismissed the audience with the benediction.

The class and faculty adjourned to the residence of Dr. Judkins, Race and Longworth Streets, where a lunch was partaken of.

In justice to the *Cincinnati College of Medicine and Surgery*, it should be mentioned that the small number of the graduating class, of the present session, is mainly due to the delay in announcing the course of Lectures of the session just closed. Our readers have been informed that, at the close of the session of 1881 and 1882, a resignation of the then faculty took place. In forming another faculty composed of gentlemen acceptable to the friends of the school, there was so much delay on the part of Trustees, that, by the time the announcement finally made its appearance, a great many students had come to the conclusion that there would be no session held during the last winter, and had arranged for attendance upon other schools.

COMMENCEMENT OF THE MEDICAL COLLEGE OF OHIO.—The Medical College of Ohio held its Annual Commencement, closing its last winter's session, on Thursday evening, March 8, in Music Hall. We were prevented from attending, but we learn by the papers of the following day that there was a large attendance of friends—half filling the hall. The Valedictory Address was delivered by Prof. T. A. Reamy, M.D., whom we know is very competent to make an excellent address. We have been informed, but we think he was misunderstood, that the Professor stated that, so full is the medical profession at the present time in this country, eighty per cent. of those who graduate every year at the various medical schools of the country, drop off into other pursuits, after a vain trial of a longer or shorter time to gain a livelihood by the practice of medicine. We know that not a few do, but we hardly think that the number is eighty per cent. of those who graduate. We can not believe that twenty per cent. of the graduates is sufficient to supply the places of those who die each year, become incapacitated in consequence of old age and bad health, who abandon the profession from choice because the practice is distasteful, and to supply the large additional number of physicians needed every year to meet the wants of the tremendous annual increase of the population from foreign emigration, besides that from births. We are of the opinion that it approximates nearer the truth in considering that eighty per cent. of those graduating annually continue in the practice of medicine, and that twenty per cent. drop off.

The number receiving diplomas, we understand, were 102, presented by Hon. Flamen Ball, President Board of Trustees. Six prizes, consisting mostly of gold medals, were awarded. One member of the class succeeded in obtaining four of them. Many beautiful bouquets were also distributed by friends.

The Cincinnati Training School for Nurses (male and female) has been organized at the Cincinnati College of Medicine and Surgery. Term begins, with formal opening, March 26, at 3 o'clock P. M., and continues six weeks.

The following curriculum of study will be taught by didactic lectures, and as far as possible by practical illustrations:

1. General hygiene.
2. General principles of nursing.
3. General and special dietetics.
4. Nursing of surgical diseases.
5. “ “ contagious and infectious diseases.
6. “ “ children.
7. “ “ lying-in women.
8. Popular anatomy.
9. “ physiology.
10. “ chemistry.

As related to the management and nursing of the sick.

Miami Medical College Commencement.—*The Miami Medical College* held the Commencement Exercises of its session of 1882–83, on Thursday evening, March 1, in Smith & Nixon's Hall. There was a large attendance of ladies and gentlemen. The programme was carried out to the satisfaction of all. The Cincinnati Orchestra discoursed most excellent music, and Levy, the most distinguished cornet player of this country, executed several of the most exquisite solos we ever had the pleasure of hearing.

The Hon. J. D. Cox conferred the degree of M. D. upon some forty-one gentlemen who had been students during the term of lectures just closed.

Prof. Joseph Eichberg delivered the Valedictory Address, making *Vivisection* the subject of his discourse—treating it in a very able manner.

OBITUARIES.—The friends of Dr. James T. Whittaker, of this city, Professor in the Medical College of Ohio, were very much shocked by the sudden decease of his wife, on Friday morning, March 2d. The evening previous, we understand, he went out about 8 o'clock, returning a little before 12. On speaking to his wife, who had retired to bed in apparently excellent health, after having given some directions in regard to household matters, and obtaining no reply, he spoke to her again with the same result. Proceeding to investigate, as she had always been a light sleeper, he found her in a state of unconsciousness. He immediately called to his aid a number of his medical colleagues, but all efforts to arouse her were unavailing, and she died about 5 A. M.

Dr. Whittaker will have the sympathy of his many friends in his bereavement.

DIED, suddenly, March 10, of disease of the heart, Marion Young Walton, aged 36 years, daughter of the late Wm. Young, of Pittsburg, Pa., and wife of Dr. Geo. E. Walton, of Cincinnati.

Dr. Walton has suffered a great bereavement in the death of his partner. He will have the heartfelt sympathy of his numerous friends both in this city and throughout the country. Our readers will recognize him on being informed that he is the author of a standard, authoritative work describing the various mineral springs, and the therapeutic properties of their waters.

DIED, at the residence of her son, Dr. John D. Gaines, of California, Hamilton County, Ohio, at a quarter before 12 o'clock, noon, March 9, Mrs. Margaret Gaines, aged 89 years, 2 months, and 9 days of paralysis. Deceased was the widow of the late Rev. L. G. Gaines, a prominent minister for many years of the Presbyterian Church.

We well remember Mother Gaines and her husband, Parson Gaines. We remember, when a little boy, not more than seven or eight years old, while playing in her yard, of her kindly treating us with a glass of milk and a slice of cake made by herself. The parson, while preaching every Sunday in a village church in Clermont County, Ohio, taught an Academy kept in a log house on his farm He was then pretty well to do in the world, although, a number of years before he died, he became very much embarrassed in consequence of losing all his money obtained from the sale of his farm by the failure of a bank. Rustic as the old school-house was, with its long benches made of rough boards polished by long sitting on them, with long round legs, and no backs, and great old writing desks that ran along the walls, it was for a long time the only school for a wide region of country that prepared young men for college. The old gentleman taught after the old style, that arose from the belief that the best method of developing the mind, so as to receive instruction, was to keep in active operation the rattan—that through the sensory nerves the slothful energies of the intellect could be the most readily reached. Flogging, therefore, began in the morning at the opening of the school, and was sedulously kept up until the close. As Latin and Greek were the main studies, and as the edition of Dr. Anthon's series of classical authors had not yet been issued, and the knotty sentences of Cæsar, Virgil, Horace, Cicero, Xenophon, etc. had to be disentangled by the student himself, it can easily be believed that the parson had constant cause to stimulate the powers of the mind by means of the whip. But a third of a century has elapsed, and more, since the close of the last session held in the old log-house academy, and we do not suppose there is left one log resting upon another. Many, very many young men acquired the principal part of their education in it who afterwards became distinguished physicians and ministers. We have known not a few of the former. Some long ago departed this life, and others of them are still leading useful lives and gathering laurels.

Very many of those who had the fortune to attend upon the instruction of the Rev. L. G. Gaines will undoubtedly learn with surprise that his wife has just only now died. As he has been dead many years, and as those whom he taught are all at least middle-aged, there have been only the few who have known her in her retired home who have not supposed she had long since past away. Mother Gaines was an excellent, Christian woman, beloved by all who knew her. She lived to a good old age.

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Original Contributions.

The Effect of Malaria upon the Human System.

BY W. R. AMICK, M. D.,

Lecturer on Opthalmology and Otology in the Cincinnati College of Medicine and Surgery.

Read before the Alumni Association of the Cincinnati College of Medicine and Surgery, February 26, 1883.

THE question has been asked time and again, What is malaria? We have quite a large amount of literature telling us of the effect upon the various organs and the symptoms that it produces. We also have the statement that in order to have malaria developed or produced, there are three things that are absolutely necessary, viz: hot sun, luxuriant vegetation, and stagnant water. The latter would be necessary, for, if the water was placed in such a condition or position that it would become active, there would be an agitation of its particles, then it would be impossible for this change to take place.

From the lowest form of animal life up to the human body, it is said, when life has fled, it is dead and still; but alas, what a mistake, for the moment the body is bereft of life, never has such rapid molecular action taken place as since dissolution has begun. Every particle of matter seems to have assumed a new duty or function, quickened as if with new life. Every particle of matter revives until the whole body becomes an active living mass.

The luxuriant vegetation which overspreads the earth, passes rapidly from growth to decay, converting the dead to life. From this accelerated decaying vegetable creation, there is produced new forms of life in the shape of minute animalculæ which fill the air, and, by being inhaled, carry poison and disease into the human system. These animalculæ or infusoriæ are very minute objects, destitute of shells or any outward covering, and moving by means of the waving of the ciliæ with which the surface is well supplied. Myriads of them are generated in certain localities and under certain conditions. Their multitudes are so great and their size so minute that those contained in a pint of water would exceed in number the population of the world.

Follow the windings of the majority of our rivers and streams and what is the topographical condition presented? You will frequently find lowlands that are covered with a rapid growth of vegetation. From a rise in the river the water overflows and nearly or quite submerges all of this green vegetable growth. The water then recedes, the sun bursts forth clear and bright until everything sparkles and glistens as if it had been tinted by the pencil of an artist. As the heat becomes more intense, the whole valley becomes a living, moving mass of life. Insects fill the air—so minute that thousands could be confined within the space of a square inch. At every inspiration of air large numbers enter into the lungs, taking up their abiding place in the system, to begin their work of destruction and death upon the human body. All forms of disease are ushered into existence as this devouring army takes up its march from one portion to another of that body, which once bore the impression of its Maker, until the soul has shaken off the corruptible and the body has been raised in incorruption. The effluvia arising from the decomposing mass, mingling with the oxygen of the air, which imparts vitality or life when submitted to the caloric rays of the sun, rapidly converts it into carbonic acid gas, and in this is generated animal life. In the lower districts there is a lack of ozone, which tends to debilitate rather than to strengthen human life. When the natural tone and vigor of the human system is lowered, it becomes more receptive to the surrounding poison that enters the body like a thief in the night, penetrating and entering its innermost recesses. Nature protests against this invasion and manifests her resistance by a premonitory sign *de rigeur.* Notwithstanding the evidence of the approach of the enemy, the body gradually lowers its standard of resistance until it rather invites than repels the fiend disease. Hence, disease seems to follow the river courses of the earth, its victims becoming more and more numerous as it nears the equatorial line.

But is it beneath the open glare of the noonday sun, only, that this enemy of mankind pronounces the sentence of death upon its victims? No, for lurking in the subterranean passages of the earth, in cesspools where the sun's rays rarely penetrate, there is developed that form of malaria which almost defies detection, that most directly assails the throat or upper portion of the body, the poison coming in contact with the mucous membrane of the air passages and being absorbed into the system, producing diphtheria, scarlatina, erysipelas and all typhoid diseases. While from open bodies of stagnant water arise minute forms of animal life that make their assault upon the mucous membrane of the nasal passages or cavity, producing catarrh and other suppurative diseases. Ascending, it involves the cellular structure of the brain. Inhaled into the lungs, minute spores enter into the air vesicles, and from there they are introduced into the arterial circulation, and carried to such portions of the body as are adapted to their growth and propagation. Hence we find the easy victim to lung and bronchial diseases as well as those who yield to the fell destroyer consumption, and all acute brain diseases. Where vegetation becomes more luxuriant and in its rapid decay throws off this miasmatic poison, we find this sperm directed to the stomach and abdominal cavity, producing zymotic and sporadic diseases, that carry contagion and epidemic in their wake. Electric currents diverted from their natural sources by contact with the caloric rays, induce them to follow the tortuous paths of valleys and streams freighted with living deaths.

Still another phase of malarial poisoning exists, emanating from the more slowly decomposing woody substance, such as fallen trees, in elevated localities, where the lichen, dryer mosses and the various kinds of fungi indigenous to higher latitudes, send forth their forked tongues as if to devour the wayfarer who may pass along the highway, allured by the seeming beauty which attracts the eye, but sends its shafts to poison the heart of the unsuspecting victim.

If vegetation succumbs to a devouring element and emits so much poison during that portion of the year which should produce only growth, what significance shall we attach to that season when all nature bows before the mandate sleep —when every tree is shorn of its tinted mantle and spread its carpet over the earth's surface as if to cover its deformity? Upon this carpet the dews of heaven descend, the the autumn rains fall, and winter's snowy garments cover all; as if an angel in passing had dropped his white robes. This accumulation awaits the coming of the sun's rays, after it has crossed the solstice of spring, which bursts the bands of winter and unfetters the ice-bound streams until they leap forth musically, proclaiming the advent of this new life which carries, not the glad tidings of health and peace, but alas, the sentence—pain and death.

From the earth's entire surface the microscopist may observe the invitation which nature extends to every form of vegetation, that she may call to her warm embrace the dying body, that she may prepare it for the resurrection morning—the coming spring. This living death continues until that morning's dawn, when she sends forth the myriads of animal life, like incense which arise from altars of divine worship, but marching upon a different mission, carrying pain and death instead of adoration and joy.

There is still another source of malaria which arises from the decomposition of the human body. When the body is consigned to the grave, the gases which have accumulated since the spirit left the mortal tenement, gradually arise, penetrating every particle of matter with which they come in contact; blending with the atmosphere they proceed on their mission and join their destiny with every relative already existing. No more deadly poison exists than that emitted from the decomposing human body. Hence our thoughts should be directed to some better method of interment or disposing of the body after death.

Here we have a favorable opportunity presented for the cremationist to present his argument in favor and support of his theory. If the body is incinerated it is evident that we will get rid of the gases and products naturally arising as the result of that decomposition, which must naturally and inevitably follow if the body is placed in the earth.

It is almost impossible to make a casket or case that will effectively prevent the admittance of moisture. If moisture can enter, then decomposition can take place. Decomposition means the formation of gaseous products of the most obnoxious character. These gases can find an exit and pass through any opening or crevice if it be sufficiently large to admit moisture. Then the placing or interment of the human body in the earth, in the ordinary method, means that sooner or later it will be destroyed or reduced to the gaseous state. This change takes place and the gases thus formed find their way up through the soil to the surface, where they are carried by the atmosphere to various places, sowing the miasmatic seeds of disease upon humanity.

Upon one occasion when Theodore Parker was in Rome, he was dining with some friends, when the subject of malaria was introduced. He proceeded to give an account of malarious regions, their peculiarities, their formation, their influence, and the precautions to be observed in guarding against their poison. His thorough knowledge of the subject would lead one not acquainted with him to suppose that he had made special preparation upon this topic. When he informed them that the miasma emanating from the decomposing human body could not penetrate through fifteen feet of gravel, they were surprised. The inhabitants of the Eternal City are acquainted with this form of poison, and to hear a stranger, who they supposed knew little or nothing on this subject, to give them such information produced considerable astonishment.

The gravel would not prevent decomposition, but it would absorb the gases before they reached the surface. According to this theory this would serve to remedy the evil.

If this be true, and there is as yet nothing to refute the statement, would it not be wise for city or state governments to legislate upon this subject, causing cemeteries to be located upon high ground, composed of a sandy or gravelly loam, and that graves should be carried to such a depth as to prevent the escape of any of these pernicious gases, and in one direction promote the public weal?

Herbert Spencer, in speaking upon this subject, says: "That the belief in boards of health, and the like, will never affect what is hoped, needs not wholly rest either upon abstract considerations, or upon our experience of state instrumentalities in general. We have one of these organizations at work, and, as far as may be at present judged, it has done anything but answer people's expectations. To condemn it because choked sewers and open gulley-holes, and filthy alleys remain much as they were, would, perhaps, be unreasonable, for time is needed to rectify evils so widely established. But there is one test by which we may fairly estimate its efficiency, viz: its conduct before and during the late pestilence. It had more than a year's notice that the cholera was on its way here. There were two whole sessions of Parliament intervening between the time when a second invasion from that dread disease was forecast and the time when the mortality was the highest. The Board of Health had, therefore, full opportunity to put forth its powers, and to get greater powers if it wanted them. Well, what was the first step that might have been looked for from it? Shall we not say the suppression of intramural interments? Burying the dead in the midst of the living was manifestly doubtful; the evils attendant on the practice were universally recognized; and to put it down required little more than a simple exercise of authority. If the Board of Health believed itself possessed of authority sufficient for this, why did it not use that authority when the advent of the epidemic was rumored? If it thought its authority not great enough, then why did it not obtain more? Instead of taking either of these steps, it occupied itself in considering future modes of water supply and devising systems of sewerage. While the cholera was approaching, the Board of Health was cogitating over reforms, from which the most sanguine could not expect any considerable benefit for years to come. And then, when the enemy was upon us, this guardian, in which men were putting their trust, suddenly bestirred itself and did what, for the time being, made worse the evils to be remedied. As was said by a speaker at one of the medical meetings, held during the height of the cholera, the Commissioners of Public Health had adopted the very means likely to produce that complaint. Instead of taking their measures years ago, they had stirred up all sorts of abominations now. They had removed dunghills and cesspools, and added fuel tenfold to the fire that existed. Never since he could recollect had there been such accumulation of abominable odors as since the Health of Town Commission had attempted to purify the atmosphere. At length, when in spite of all that had been done (or, perhaps, partly in consequence of it), the mortality continued to increase, the closing of graveyards was decided upon, in the hope, as we must suppose, that the mortality would thereby be checked. As though, when there were hundreds and thousands of bodies decomposing, the ceasing to add to them would immediately produce an appreciable effect."

It is very evident from the above that Mr. Spencer not only recognized the fact that the decomposition from the human body would have a tendency to increase the pestilence that existed at that time, but might produce sickness itself. He knew that the elements of decomposition escaped from the body and mingled with the atmosphere. Any attempt, especially during an epidemic, to remove bodies that had been interred, would simply open an avenue through which the obnoxious gases could flow in a full stream.

Another invasion into the sacred sanctuary of home is made by this lurking demon. The gases arising from water and escape pipes, into and from dwellings, through which the poison gases may be conveyed into every apartment, there to be inhaled by the unsuspecting victim. Diphtheritic and kindred diseases are induced as a result of the presence of this enemy. Disinfectants can scarcely overcome the evil ascending from the sewers into every house where such pipes are introduced. We had much better adhere to old time customs or fashions, the use of wash-bowl and pitcher instead of the stationary set wash-bowl. What shall obviate this wrong? Either abolish from residences all pipes connecting with sewers and sleeping apartments, or inaugurate an entirely new system of plumbing, by which all perforations of pipe or return of sewage gas to any room or portion of dwelling, shall be so arranged, by the use of traps, as to shut off and out the evil. Disinfectants, such as sulphate of iron and different forms or combinations of lime—the better of which is a mixture of baked or dried earth four parts and sulphate of iron two parts—freely distributed throughout cellars and all obscure, damp or moldy places, will have a tendency to absorb these gases. Let every cellar be frequently covered with lime, however dry it may be; let there remain no decaying vegetable matter in any cellar for any length of time, however short; in other words, remove from the cellar everything not absolutely necessary to remain there. Allow a free circulation of air through every part of the house, and as carefully guard against this grim monster, the helpless infant and stalwart man from this insinuating poison, as you would against the burglar, who would enter your house by night to carry off your treasure.

It must be remembered that the amount of toxic principle contained in the escape product from joints, connections, breaks, etc., in the pipes, can not be estimated by the odor. Some odors are very offensive and yet contain little or no poison, while others that are nearly or quite odorless, convey the most fatal germs.

Dr. Frank H. Hamilton, of New York City, has written an article on sewer gas for the *Popular Science Monthly*, and he presents the opinions of the most reliable authorities upon this subject. He says that Colonel George B. Waring, Jr., Sanitary Engineer, makes the following statement, "It is quite true that such plumbing work as is to be found in nine out of every ten houses, even in Fifth Avenue, is unsafe, and ought not to be allowed to remain within the same four walls with a family of human beings." Mr. Charles F. Wingate, Sanitary Engineer, in his paper, read before the Kings County Medical Society, says; "The constant demand for the doctor's services in so many houses in their normally bad state, and the fact that his services are no longer demanded when they have been put in sanitary condition, tells its own lesson." Dr. Fordyce Barker made the following statement, before the New York Academy of Medicine, on the subject of sewer gas and plumbing: "When I assert that it is a daily experience with me to see persons whose general health is suffering from this poison, as manifested by *malaise*, loss of appetite and strength, slight febrile symptoms, diarrhœa, physical and mental depression; and that I have seen infants, children and adults suffering from diphtheria, scarlet fever of a mild type, complicated with this disease and destroying life; those in vigorous health, students in colleges, ambitious and active young men in the professions, or in the commercial or financial world stricken down by typhoid fever, some struggling through the disease and others dying; and that the cause has been demonstrated to be this poison. I only state facts which are common in the experience of all the physicians in this city. In some cases this has been the result of ignorance of the very unsanitary conditions which environed them. For example, two young men were stricken down with typhoid fever, one of whom died. They were not acquaintances but occupied offices in the same building in the vicinity of Wall Street. On investigation it was found that there was not a trap in the whole building. In a house in which, but a few months before, several hundred dollars had been expended to put the building in perfect condition, a young man died of typhoid fever, and others of the family became ill, when it was found that a defective waste-pipe was saturating the house with poisonous gas. But such facts as these are so well known to the profession that I need not dwell upon them."

At the same meeting Professor Doremus gave us the painful story of the sudden prostration of his two sons, one of whom died, and the other recovered only after a prolonged illness; in both of which cases sewer-gas was ascertained to be the cause of the sickness. "I would rather," said Professor Doremus, "have exposed my sons to the deadliest poisons in the laboratory, for which we have antidotes, while for the deadly effects of sewer-gas we have no remedy."

"From sewer-gas the Prince of Wales nearly lost his life in one of the princely houses of England. The Duchess of Connaught had to be removed from Bagehot to escape death from the same cause, after about two hundred thousand dollars had been expended to put the house in order on the occasion of her confinement."

It is not necessary to speak farther upon this phase of the subject, yet instances of a similar nature can be produced by the score.

Are there no means by which the difficulties arising from other malarial sources can be remedied or removed? We believe there are. The agriculturist and the floriculturist could no more profitably devote his attention than to investigate the remedies which nature applies to all her disorders. There is a balm for every ill, and a panacea for every pain. Nature provides her own remedy for every disease. It becomes necessary to discover what plants or shrubs thrive best or absorb the poisonous gases arising from this decaying mass. For low lying lands where vegetation grows most rank and strong and luxuriant, plants, shrubs and trees that absorb most of carbonic acid gas should be cultivated. The marsh (yellow bark) willow should adorn the banks of rivers and sluggish streams and all marshy places where this gas prevails. On higher and dryer soil the sunflower should be abundantly cultivated or planted, and through these golden blossoms convert the destroying evil into a thing of beauty.

By this the germs of fevers and eczemic diseases would be consumed or destroyed in nature's laboratory, more happily disposing of evil influences, than that they should enter into the body of man only to destroy him.

Malaria is the hydra-headed monster marching on uninterruptedly over the land, too often disguised by attractive raiment, or like a wolf in sheep's clothing, seeking whom he may devour. The alarming evil which is assuming such vast proportions all over the land, calls loudly for some power to resist its almost boundless sway.

It becomes not as important to cure as to prevent disease. Hence we will endeavor to discover, if possible, the means by which malaria may be converted into pure oxygen, and thus distribute health and happiness instead of discouragement and disease.

Three conditions are requisite to remove this growing evil that embraces all conditions of life. There are no diseases that operate so directly upon the nervous system as those induced by malaria; therefore, it is all important that some means be discovered by which the environments of human life be changed.

The scientist has no higher mission than to exalt the human to a clearer conception of its relation to the kingdom of matter. There is no louder call to the naturalist than that which bids him remove the obstacles by which the ties existing between the various species shall become more divinely strong, because of a clearer understanding and a more direct dependence. The electrician can not more clearly define the mysteries of nature than to direct the elements of nature to such causes as shall establish perfect health between soul and body; by not only chaining the lightning, making it a direct means of communication between man and man, but by addressing it to the necessities of the human body, establishing a vitalizing tie between all of its members.

The general health and prosperity of the nations of the earth would be greatly enhanced by a more careful appropriation of nature's wealth to her highest and best uses. The earth has stretched forth her hand to receive the fiery element descending from the skies, and has encircled her surface, both by sea and land, in the strong embrace of communicable intelligence. This fluid electricity, which permeates all nature, and binds together as well as distributes, from her vast storehouse, that which not only contributes to her mental progress, but as well to her material advancement.

Electricity becomes a panacea for a large majority of physical ills, when properly applied to the various forms of disease, as well as instrumental in preventing its advance before having attacked the human body. It should, therefore, afford much satisfaction to man to make use of nature's royal gift in such a manner that it may become the avenger of this evil. Its fires are quickened by the consumption of those gases which otherwise contribute to aid the fell destroyer, in his deadly work, rather than brighten the pathway of man and beautify the kingdom of life. There is nothing in nature, however potent it may appear, to overcome the power assigned to the human body, but that, if directed into the proper channels, can become the effective foe to disease and premature death.

During the late Rebellion, when General Benj. F. Butler was stationed at New Orleans, the Confederates looked forward to the coming of "Yellow Jack," saying, that even "Butler could not successfully resist this relentless foe, who would become a more formidable enemy to the Northern invader than rebel cannon and sword;" but here was clearly shown the fact, that a little common sense and science overcame the dreaded monster yellow fever. Between New Orleans and Lake Ponchartrain there was standing a dense forest of live oak and magnolia trees, with the aerial plant, a gray moss, pendant from every branch; so dense was this forest that it presented an almost impregnable wall to man or beast. General Butler immediately set himself about seeking to devise some method by which the approaching demon could be met and overcome. Detailing from the regiments a sufficient number of men, who, with ax and saw, began the work of salvation to the beleaguered city, he cut away a strip of forest trees nearly or quite a mile in width, making an open passage for the winds to blow uninterruptedly from the Lake to the River at New Orleans, a distance of about four miles. He then caused to be made open gutters upon either side of the streets in the city. These gutters were planked upon the sides and bottom, but uncovered, so that they might catch the sunshine. He then let into each of these water-ways the waters of the Mississippi River, whose surface is higher than that of Lake Ponchartrain, and from night until morning these gutters were washed by the passage of water from the River to the Lake. The sequel proved the efficacy of the design. With every condition conducive to the reception and nourishment of yellow fever, the prayers of the people united with the penetrating poison of such malaria, failed to successfully invite the grim monster Death, to his fearful work, where he had hitherto prevailed. General Butler had driven the fiend from his lair, in the dense forest of Lake Ponchartrain, and had removed the track upon which the Juggarnaut of Death rolled over its victims in that city that has always seemed to offer prey to this dreaded disease.

Previous to this time the germs of this disease were allowed to remain in the forest without interruption. No measure had ever been instituted that could successfully stay the tide of the pestilence that would occasionally sweep over the city. Yet, with a little forethought, the ounce of prevention is proven to be worth more than the pound of cure.

Michigan State Board of Health.

Reported for the CINCINNATI MEDICAL NEWS.

THE regular quarterly meeting of the Michigan State Board of Health was held at its office in Lansing, Mich., on Tuesday, January 9, 1883, the following members being present: Hon. LeRoy Parker, of Flint, President; Henry F. Lyster, M. D., of Detroit; Rev. D. C. Jacokes, of Pontiac; J. H. Kellogg, M. D., of Battle Creek; Arthur Hazlewood, M. D., of Grand Rapids; John Avery, M. D., of Greenville; and Henry B. Baker, M. D., Secretary.

The subject of oil-inspection was brought up, and it was stated that it was alleged that much oil is being sold without being inspected, partly because of there not being enough inspectors, and partly because of the system of payment for inspection which allows a man to receive large pay for his labor performed during the first of the month, and toward the last of the month, when the fees get smaller, the work is not done. The object to be attained by the inspection should be to ensure that the oil used by the remote farmer in his cottage, should be as safe to use as that in the city near the inspector; and it was represented to the Board that the cost of inspection could be reduced from $27,000 to $12,000, and yet have all the oil properly inspected, but not without employing more inspectors than are now employed. Dr. Hazlewood and Dr. Baker were appointed a committee to take such action as was considered necessary on the subject of the inspection of oils.

The Secretary made his report of work during the last quarter, mentioning the efforts to prevent the introduction of contagious diseases by immigrants; the distribution of blanks and circulars to officers of local boards of health providing for their annual report; the general distribution of the Annual Report of the Board for 1881; the issuing of a circular, by Drs. Kellogg and Avery, with a view to collecting all facts respecting the cause and spread of diphtheria; the preparations for a sanitary convention at Pontiac commencing Jan. 31; the preparation of articles embracing facts collected respecting contagious diseases in Michigan; also one giving what has been learned by the immigrant inspection service; also a paper read before a convention at Jackson, on "The Relations of the State Board of Health to Corrections and Charities." A resume of the work of other State Boards of Health was also presented. It showed that in three counties in California, small-pox had been introduced by immigrant cars. The authorities provided an inspection and have, for the present, stopped the introduction of this loathsome disease. In Michigan the expense of such inspection is much greater on account of the large number of immigrants, and the Secretary claimed that the National Government should continue to provide means for such inspection, and thus protect the people from Maine to California. Senator Conger and Representative Rich have introduced bills in Congress to appropriate $25,000 to enable the National Board of Health to aid State and local boards of health, to prevent the introduction of contagious diseases and their spread from one State into another, by means of the immigrant inspection service. After reading the above mentioned bill, the following resolution was passed:

WHEREAS, This Board has long been laboring for the restriction and prevention of contagious diseases in Michigan, which depends greatly upon the existence of such diseases in other States and countries; and as this Board has been able to trace several outbreaks of diseases in this State during the past year to immigrant travel, etc., therefore

Resolved, That this State Board of Health urgently requests our members of Congress to endeavor to secure the passage of a bill to appropriate $25,000 for the remainder of this fiscal year, and thereafter at about the same rate, to enable the National Board of Health to co-operate with State and local boards of health and quarantines in efforts to prevent the introduction of contagious diseases into the United States, and their spread from one State to another.

The invitation to hold a sanitary convention at Reed City, sometime in the spring, was accepted.

Analyses of apple-butter and of the tinned-copper, such as is used to make wash-boilers, were presented. The apple-butter is often made in such "copper" boilers when they are new. The acid of the fruit attacks the tin, which often contains lead in dangerous quantities, and it is said that the tin lining is eaten off in one or two times using for making apple butter. The analysis of the apple-butter showed distinct traces of lead and tin and a faint trace of copper. That portion of the apple-butter in contact with the cap of the fruit jar in which the apple-butter was sent to the chemist gave very strong reactions for zinc, doubtless derived from the zinc cap which screws down upon the mouths of "Mason" fruit jars. The specimen of tinned-sheet copper used in making "copper" boilers, and other kitchen utensils, was analyzed and the "tin" was found to contain a large quantity of metallic lead; about $\frac{2}{5}$ of the "tin" was lead. From one square foot of such tinned surface there was obtained the equivalent of 150 grains of metallic lead. The ordinary clothes boiler, such as used in our kitchens, if made of this "tinned-copper" would have 2⅓ ounces of metallic lead on its surface, an amount that must have a serious influence on persons who eat acid fruits and juices boiled in such a vessel. Dr. Hazlewood and Dr. Baker were requested to make an investigation into the subject of metallic poisoning by utensils for cooking and storing food.

The city of Hillsdale, Mich., now requires burial permits. While this subject was under discussion, Hon. Geo. Howell, M. D., a member of the committee on public health of the present House of Representatives, read a proposed bill to promote the public health. He received the thanks of the Board. The subject of requiring burial permits and thus securing mortuary statistics before removal of the body of deceased persons, was referred to the committee on legislation, with the request to prepare a bill and submit it to the Legislature. The former Board adopted a resolution commending the effort to secure mortuary statistics before the burial or removal of the body of a deceased person, and declaring that the method is applicable to townships and villages, as well as to cities.

Many letters from prominent sanitarians, in this and other countries, were presented, which spoke in a very appreciative manner of the work of this Board.

It was moved and carried that local boards of health be recommended to supply physicians, and persons acting as such, with blank notices of diseases dangerous to the public health printed on postal cards.

The committee on legislation reported on an act requiring the registration of plumbers. Hon. James Heuston, M. D., Senator, spoke on the subject of the examination of new dwellings before occupancy, and the following resolution was offered by Dr. Baker and adopted:

Resolved, That the committe on legislation, etc., and the committee on buildings, public, private, etc., jointly, be requested to take into consideration the feasibility of the suggestion made at this meeting by Hon. James Heuston, M. D., for a State law, requiring all plans for new dwellings to be submitted to the local board of health for approval.

The committee on disposal of excreta was requested to prepare a pamphlet for general distribution, on the disposal of slop-water, garbage, etc., in villages without a sewerage system, and from detached dwellings.

The American Public Health Association has recommended making it a penal offense to communicate a contagious disease. The committee on legislation was requested to modify the bill so as to name diphtheria, scarlet fever, and small-pox, and get the subject before the Legislature.

The special committee on sanitary conventions reported that a sanitary convention was to be held at Pontiac on Jan. 31, and Feb. 1, 1883. Among the subjects to be presented, are papers on the limitation and prevention of typhoid fever, the relation of the medical profession to public health laws, on toy pistols, the dangers in dirt, and on the contamination of well water.

The following resolutions (two of them having been passed before) were reaffirmed:

Resolved, That there should be required of all who are to begin the practice of medicine in this State, an examination as to their qualifications.

Resolved, That such examinations by the State should be restricted to questions in demonstrable knoweledge as distinguished from questions of mere opinion.

Resolved, That, as a public health measure, these two resolutions be referred to the President and Secretary with a request to do what they can to further the objects of the resolutions.

Auditing of bills and other routine business was performed. The next meeting of the Board will be at Pontiac, Jan. 31, and the next regular meeting will be April 10, 1883.

Curability of Consumption.

BY W. M. LOGAN, M. D.,

Author of a Treatise on the Pathology and Treatment of Pulmonary Consumption, Cincinnati, Ohio.

EDITOR OF MEDICAL NEWS: *Dear Doctor*—Since the publication of my essay on the Curability of Consumption, in your journal of last May, I have been able to obtain photographs of cases first and second, respectively, as they are described in the NEWS of that issue; and, having had them engraved, I would respectfully request, if agreeable to yourself, to insert them at your convenience, reproducing so much of my former article as relates directly to them. And when I state my reason for so doing, I think you will agree with me that the matter is well worthy of agitation.

Notwithstanding the abundance of authoritative literature upon the subject, the prevailing ignorance in regard to phthisis pulmonalis is appalling. It would be bad enough if only a few unimportant medical practitioners, instead of making a profound study of each individual case, treated their consumptive patients *a la parrot*, like the female gynæcologist Prof. Mendenhall used to allude to, who went about "with a speculum in one hand and a port caustic in the other," without being rewarded with encouraging clinical results.

But not so. Even men with the imposing title of Professor prefixed to their names, not a few of whom, as is well known, have by social considerations, favoritism, and "cheek," been placed in professorial positions, compelled, of course, by their lack of clinical success, deny emphatically the possible curability of consumption, and stigmatize as impostors those in the profession who dare to oppose them. Some of the professors referred to are genial fellows, interesting talkers, plausible and convincing, as well as bold and unscrupulous in their utterances, and are consequently capable of doing much harm by misleading those who are subjected to their influence. Extraordinary as it may appear, two of the men who have of recent years occupied the chair of practice in one of our leading medical colleges, belong to this category. One, in his time exceedingly popular, never himself a literary man, made a practice, in his lectures and elsewhere, of denouncing medical writers as "bookworms," "visionaries," etc.; and to avow for the literature of medicine a most profound indifference, which avowal was certainly sustained by at least his lectures on phthisis pulmonalis. When, in December, 1874, I exhibited to the Cincinnati Academy of Medicine, the male patient whose likeness is here presented (case first), sound and well for two and a half years, upon being requested by the presiding officer to examine the patient and give his opinion in regard to the case; this popular but over-rated professorial nincompoop cavalierly declined, sneeringly adding that "all of these young graduates think they know more about consumption than I do," to which the writer promptly retorted, "if they do not they have certainly been badly taught." The present occupant of the same chair a few years ago said to the writer: "Curing consumption may do well enough to talk to the 'laity' about, but with the profession it won't wash." "Virchow," continued the professor, "has recently published an article in which he shows conclusively that the cure of consumption is not in the present order of things, nor among the possibilities of the future." If Prof. Virchow, of Berlin, or the two Cincinnati professors referred to, and others like them, would take the trouble to read up the standard authorities* on the subject, they would find that all the while they had been badly misinformed themselves, as well as misleading others. The two accompanying illustrations, representing *post mortem* specimens taken from subjects who were known to have had consumption in a very bad form, and recovered, dying long after of entirely different maladies, as they appear in various works on Practice and Pathology, show how the lung tissue looks after complete recovery and arrest of the disease has taken place, and ought to be so familiar to all medical practitioners as to leave no doubt whatever in any one's mind in regard to the successful management of at least a portion of the cases.

To practically illustrate my position on this question, I here reproduce from my article of last May, the following statement in regard to the history, treatment and present condition of two well-marked and unmistakable cases of consumption that I have successfully treated, whose present appearance I have recently had engraved.

CASE FIRST.

Harry B——, *æt.* 20 years at time of first consultation, on July 20, 1870, and a varnisher by occupation. He was of medium height, slender, and very much emaciated, and presented the following symptoms: Persistent and distressing anorexia, a most harassing cough, with muco-purulent expectoration, frequently tinged with blood, and for several weeks had been annoyed with exhausting night-sweats, which my predecessor in the case could not control. Patient stated that both parents had died of consumption when he was a child.

Physical Condition.—Extensive flattening of anterior thoracic wall below left clavicle, with profound dullness on percussion, bronchial breathing and broncophony. Also, moist rales heard in same region. Rude inspiration, prolonged expiration, and dullness on percussion at apex of right lung. Also, puerile respiration heard in other parts of the chest.

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* For authorities on this subject, see pp. 240 and 241.

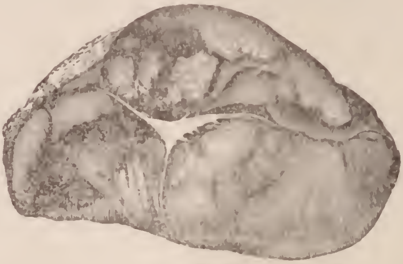

FIG. 1.

Cicartrix or scar at the apex of a lung, resulting from the previous arrest of tubercular disease.—See Watson's Practice of Medicine, 1872, volume 2, p. 220.

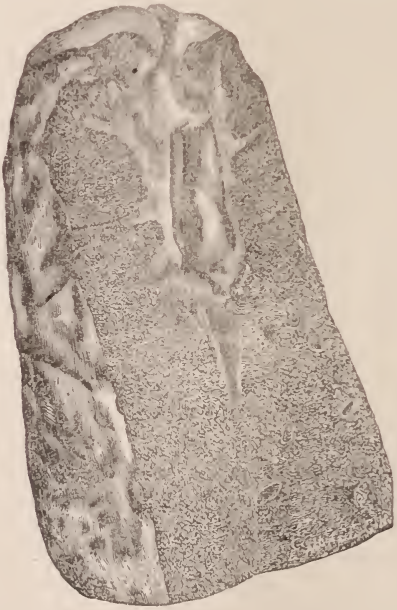

FIG. 2.

Internal section of the summit of the left lung, showing a large cavity, the result of tubercular consumption, cured and lined with scar or cicatricial tissue.—From Bennett.

The copying of these splendid engravings was very faithfully executed by Mr. Edward McFee, a rising Cincinnati artist.

Treatment.—At first oxide of zinc and ext. of belladonna, in pill, at night, with compound camphor liniment, locally, to relieve intra-thoracic irritation, mitigate cough, arrest colliquative sweating and procure sleep; but which were discontinued in a short time, after the subsidence of the troublesome symptoms for the relief of which they had been prescribed. Also, tinct. ferri muriat., in fifteen drop doses, in combination with tonic doses of quinia; and tincture of nux vomica, diluted, half an hour before meals, and bismuth and pepsin after meals, to relieve the irritable and enfeebled stomach, increase the appetite; and promote digestion, as well as contribute to the general tone of the organism. Slight improvement was soon manifested, and was continuous; but it was several weeks before the gastric distress was sufficiently subdued to warrant the discontinuance of the bismuth and pepsin powders. Then they were superseded by dilute nitric acid, in thirty to forty drop doses, diluted, after meals, while the tonic of tinct. ferri muriat, nux vomica, and quinia before meals was still employed. After this was persevered with a couple of weeks, the digestive powers having greatly improved, and being sufficiently restored to warrant the procedure, cod liver oil was prescribed, and tolerated, in drachm doses, gradually increased to half a fluid ounce, thirty minutes after meals. This treatment was persevered with, modified from time to time by the occasional alternation of one tonic combination with another, aided, when required, by stimulating applications to the chest, locally, and anodyne expectorants—principally at night—during a period of two years, when medication was finally discontinued, the patient feeling and looking perfectly well. He had, during the last

Case First.

year and a half, resumed his occupation. One year after (1873) the discontinuance of medication he was, at my request, examined by Dr. Carson, who had examined him in consultation with me three years previously, finding slight dullness* on percussion, with wavy respiration, in upper part of left lung. Upon examination, the right lung was found to have resumed perfectly its normal condition. In August, 1882, I succeeded in obtaining his photograph, from which the engraving (case first) was prepared, when he looked as robust as could possibly be desired, and stated that since prior to July, 1872, when he ceased medication, cured, he had not experienced a pain, ache, or bodily ill of any description.

So much for the eminently successful treatment of this well-marked, unmistakable, and at first seemingly unpromising case.

CASE SECOND.

The next one to which I invite your attention is that of Miss Anna K——, *æt.* at time of first consultation, July 26, 1876, fourteen and one-half years, and an operator in a cotton factory, by occupation. Upon my arrival at the patient's residence I found her profoundly emaciated, and too feeble to sit up, or even speak; but her mother informed me that the case was one of several months' duration; that her illness started from exposure to cold, followed by cessation of the catamenia, hæmoptysis, loss of appetite, and the various other phenomena which usually attend phthisical decline of the bodily forces; that her father's sister had died of consumption; that several physicians had, at different times, been consulted in various college dispensaries, and elsewhere, in the earlier periods of the case, all of whom pronounced it as being consumption, and incurable; that she was then suffering from a severe diarrhœa, in which the bowels acted every few minutes, and that at times she was distressed with a cough, violent almost to suffocation, and accompanied by a muco-purulent and occasionally bloody expectoration. Considering the circumstances, of course, no physical examination of the chest was at that time made.

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* Of the condition of the lungs after consumption has been cured, Dr. Williams says: "The signs of the cure of phthisis might be expected to be the complete disappearance of those of the disease, but it is rare that the disease and its effects are so completely removed as to leave no trace behind. We can record a few cases of incipient disease, chiefly of inflammatory origin, and of decidedly consumptive character, in which crepitation, dullness and tubular sounds have been entirely removed, and the patients have been restored to complete health. But the commoner degree of what may still be called a cure, is where the general health is recovered, cough, and expectoration, and other symptoms have ceased; yet the physical signs, whilst showing a cessation of all active disease, still indicate traces of its effects on the lungs and their coverings. Thus, a collapse under a clavicle; a flattening of the upper or lateral walls of the chest; slight variations in the sound on percussion, and in the respiratory movements; a weakness or a mere roughness of the in-breath sound in the former seat of disease; a remnant of tubular sound, especially above a scapula in some of its varieties—whiffing, blowing, long out-breath, broncophonic—may permanently remain, evidences of trifling changes left by former diseases, but not materially interfering with function or structure, and therefore productive of no further disorder than perhaps slight shortness of breath, and disposition to cough on exertion and on changes of temperature."—Williams on Pulmonary Consumption, London, 1871, pp. 177 and 178.

Treatment.—My first prescription was half a fluid ounce of camphorated tincture of opium, every three and one-half hours, alternated midway between doses with an ounce of brandy, diluted, and four grains of quinia; expressing to the family the opinion that but a few days at most, and perhaps only so many hours remained for the girl to suffer. Very much to my surprise, however, at my visit on the day following, I found her not only alive, but very greatly relieved. Although still too weak to sit up in bed, or to speak above a whisper, the diarrhœa had stopped and the patient was quite comfortable. I then ordered that the brandy and quinia be continued every four hours, with tonic doses of tincture of nux vomica; but, in the absence of continuous anodyne necessity, the use of the opiate should be limited to a dose in the evening to insure rest. This treatment was continued three weeks, in conjunction with various bland nutrients, such as rice water, isinglass jelly, oatmeal gruel, sago, beef essence, panada, tapioca, soft boiled or poached eggs, etc., in moderate quantities, and in continual rotation, by way of variety, to maintain their acceptability, midway between each tonic and stimulant potion, followed by three-grain doses of Scheffer's pepsin, and five grains of sub-nitrate of bismuth; using simultaneously, stimulating applications, *pro re nata*, to the chest. By this time the patient had improved so much that she was able to sit up at short intervals, and took her nourishment with great relish. A physical examination was then made, revealing slight depression below right clavicle, with dullness on percussion, bronchial breathing and broncophony. The same auscultatory sounds were well pronounced posteriorily to right apex. Also, coarse inspiration, prolonged expiration, and dullness on percussion at apex of left lung.

Her regimen and treatment were then changed to three regular meals, *per diem*, consulting the taste as to quality, and the appetite as to quantity, each meal being preceded thirty minutes by five grain doses of citrate of iron and quinine, in solution, with five drops of tincture of nux vomica, and a drachm of compound tincture of gentian—interrupted occasionally, and substituted from time to time, by a variety of other tonic combinations—and followed, shortly after eating, with thirty drops of dilute nitric acid in a wineglassful of water, and a drachm, gradually increased to half a fluid ounce, of cod liver oil in emulsion,* with a pill of oxide of zinc and extract of belladonna, when required, at night. This treatment was well tolerated, and was followed by such remarkably rapid and uninterrupted improvement that on the eighty-third day of my observation of the case, in passing her house, I was surprised to find the patient engaged in removing a pile of coal from the street. From that time (October, 1876) I ordered the treatment reduced to ten drops of muriated tincture of iron, diluted, and three drachms of cod liver oil, thirty minutes after meals, which was continued during the winter, and an entire suit of heavy, all wool flannel underwear to be worn, and under no circumstances to be omitted until after the permanent return of warm weather. I may remark, by way of parenthesis, that the paramount importance of this latter procedure, to protect the patient from atmospheric changes, can certainly not be overestimated, or too emphatically insisted upon. In the spring of 1877 the nutritive treatment, consisting of muriated tincture of iron and cod liver oil, which had alone been employed during the winter, was permanently discontinued, the patient seeming and expressing herself as feeling perfectly well, and having pursued her vocation from the November preceding, which she has also been able to do, uninterruptedly, to the present time (March, 1883)—her health continuing to be unexceptionably good.

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*I will not pause here to describe the processes by which are prepared the various emulsions of cod liver oil, which I direct my patients, under different conditions, to use, but will reserve that matter for discussion at another time, under the heading of Cod Liver Oil Emulsions, in a paper which I purpose producing presently, entitled Some Observations Upon the Treatment of Phthisis Pulmonalis. I may state, without boasting excessively, that the apparatus which I devised a few years ago, with which to cheaply and efficiently prepare palatable Cod Liver Oil Emulsions, was, upon the score of novelty, awarded a Silver Medal by the Seventh Cincinnati Industrial Exposition, 1879.

CASE SECOND.

Engraved from a recently taken photograph, by Mr. Edward McFee, an accomplished and painstaking Cincinnati artist.

Present Condition.—On October 14, 1881, at my request, the patient was examined by Dr. Wm. Carson, who found slight deficiency of motion, with slight impairment of percussion resonance, and defective vesicular murmur at upper anterior region of thorax, on right side. Slight percussion dullness and prolonged expiration at right apex, posteriorly. Lower portion of same lung slightly defective in percussion resonance, with feeble vesicular murmur below angle of scapula. The left lung was, upon examination, found to have resumed, perfectly, its normal condition.

Thus I have, at the risk of being tedious, sketched as briefly as possible the histories and treatment, with the verified results, of two obviously dangerous and unpromising cases. I have, of course, in a very considerable practice, extending over a dozen years, attended a large number of consumptive patients, whose treatment, in not a few instances, was followed by equally gratifying results with that of the two cases detailed above. Even as remotely as 1871, I reported in the book on consumption, which I published that year, an account of twenty-four cases, ten of which recovered, three died, four materially improved before quitting treatment, while the remaining seven consisted of those pusillanimous creatures who have not character enough to become obedient and painstaking patients; but who always improved, whenever, for a while, they could be prevailed upon to take their medicine, are marked "favorable" after having been under observation during varying periods of from two to seven months. My reason for selecting these two in particular is that they have (although at first seeming almost moribund), not only recovered their health perfectly, and still retain it; lived and flourished, without relapse, one for more than ten years, and the other for six years, since the entire discontinuance of medication—but that in both of them it is my extreme good fortune to be sustained in regard to diagnosis, treatment and results by Dr. Carson, whose judgment in such cases, I need scarcely tell you, is authority for the medical profession wherever he is known.

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* For authorities, illustrating recovery from consumption, the reader is respectfully referred to the following:

Gross' Elements of Pathological Anatomy, third edition, 1857, pp. 433 and 434.

Jones' and Sieveking's Pathological Anatomy, by Payne, second edition, London, 1875, p. 505, *et seq.*

Orth's Compend. of Diagnosis in Pathological Anatomy, English edition, 1878, revised by Reginauld Heber Fitz, M. D., Assistant Professor of Pathological Anatomy in Harvard University. p. 156.

Wagner's Manual of General Pathology, translated from the sixth German edition, p. 381.

Wilks' and Moxon's Pathological Anatomy, second edition, 1875, p. 346.

Paget's Surgical Pathology, third American edition, 1865, p. 713.

Watson's Lectures on the Principles and Practice of Physic, by Dr. Henry Hartshorne, 1872, last American from fifth English edition, vol. 2, p. 219.

Aitkin's Science and Practice of Medicine, sixth edition, 1872, vol. 2, pp. 824 to 828.

Bennett's Clinical Lectures on the Principles and Practice of Medicine, second edition, 1858, pp. 670 to 674.

Roberts' Theory and Practice of Medicine, fourth edition, 1880, vol. 1, p.481.

Ziemssen's Cyclopædia of the Practice of Medicine, 1875, vol. 5, pp. 595 and 596.

R. Carswell in Forbes, Tweedie and Conolly's Cyclopædia of Practical Medicine, revised by Robley Dunglison, M. D., 1846, vol. 4, p. 485, *et seq.*

See also article on Tubercular Phthisis, by Sir James Clark, in same volume above referred to, p. 520.

Tanner's Practice of Medicine, sixth American, from the last London edition, 1874, p. 132.

Barlow's Practice of Medicine, by Condie, 1856, pp. 228, 240 and 244.

Bartholow's Practice of Medicine, 1880, p. 368.

Wood's Practice of Medicine, sixth edition, vol. 2, p. 98.

Reynold's System of Medicine, by Dr. Henry Hartshorne, 1879, vol. 2, pp. 130 and 131.

Flint's Practice of Medicine, fifth edition, 1880, p. 210.

Geo. B. Woods' Therapeutics and Pharmacology, third edition, vol. 1, p. 209.

Therapeutics and Materia Medica, by H. C. Wood, Jr., M. D., third edition, 1881, p. 411.

Fothergill's Principles of Therapeutics, 1876, p. 530.

Pereira's Elements of Materia Medica and Therapeutics, edited by Drs. Bently and Redwood, 1872, p. 1045.

Biddle's Materia Medica, eighth edition, 1877, p. 354.

Garrod's Essentials of Materia Medica, 1865, p. 377.

N. Am. Med. and Surg. Jour., viii., p. 277.

Am. Jour. of Med. Sci., xxvi., p. 256.

Pulmonary Consumption, by Sir James Clark, M. D., F. R. S., 1835, pp. 295 and 296.

Dr. Edward Smith on Consumption, 1865, p. 17.

Lectures on the Functions of the Lungs, Consumption, etc., by Dr. S. S. Fitch, 1856, p. 25.

Williams on Pulmonary Consumption, 1871, p. 309.

Lawson on Consumption, p. 546.

Fuller on Diseases of the Lungs, 1867, p. 419, *et seq.*

Flint on the Respiratory Organs, 1866, p. 423.

Waters on Diseases of the Chest, second edition, 1873, p. 215.

Flint on Phthisis, 1875, pp. 219 to 242.

See account of *post mortem* examinations made by Dr. James Henry Bennett, at Salpétrière Asylum for aged and infirm women, in Paris, in the lungs of many of whom were found "large cretaceous deposits and puckered cartilaginous cicatrices, which proved emphatically, undeniably, that they had been consumptive at some antecedent period of their life, but had got well."—Dr. James Henry Bennett on Pulmonary Consumption, 1872, p. 3.

See also account of the autopsy made by M. Serres and M. Gendrin, upon the remains of Pinel, the celebrated French pathologist, who recovered completely from consumption, and enjoyed perfectly good health during an active professional career of fifty years.—*Ibid*, pp. 184 and 185.

Vide account of clinical experiments of M. Debove, on consumptive patiets, recently reported to *Soc. Medicale des Hospitaux*, in which, "at the autopsy of one of them who died through accident, it was found that there was a commencement of cicatrization in some of the cavities."—*Med. and Surg. Rep.*, July 15, 1882, p. 74.

"M. Dujardin-Beaumetz confirmed the results obtained by M. Debove's method."—*Ibid*, p. 74.

See also same copied in *Cincinnati Lancet and Clinic*, July 22, 1882, p. 82.

Any or all of the above authorities may be cited as recognizing the possible curability of consumption.

Translations from Our Foreign Exchanges.

Translated for MEDICAL NEWS by Dr. Illowy, Cincinnati, Ohio.

THE FRONTIERS OF FOLLY.

A Lecture delivered by Prof. Ball, in the School of Medicine, Paris.—*Tribune Medicale.*

GENTLEMEN: In the course of the three years just passed we have gone over the domain of mental alienation, and there are but few points that we have left unexplored.

And still there is a vast province which has remained almost unknown to us, of which we have scarcely seen the borders from a distance; I mean the frontier zone that lies between *reason* and *folly*.

For the public, or more exactly for the profane, who have never crossed the threshold of the temple—I mean the threshold of an insane asylum—there seems to be a mathematic line that separates the two states; here truth, there error; on one side folly, on the other good sense; in other words, *one* *is crazy, or one is not.* These ideas, perfectly simple, but absolutely false, are made to please those spirits who view only one side of things. We can also understand in what favor they are held and what sway they exercise. Inspired by these vulgar notions, a celebrated orator at one time said that a conversation of a quarter of an hour sufficed to disclose whether a man was insane or in possession of sound reason.

Allow me, gentlemen, to recall a historic incident. It is now about half a century since the Lieutenant General Count de la Rue was charged by the king, Louis Philippe, to negotiate a treaty with Morocco, fixing the occidental frontiers of Algeria. A line was drawn, which, starting from the Mediterranean, ran through the interior of lands; but from a given point the frontier, by mutual agreement, was left undecided; because, said the Moriscoes, beyond the point mentioned there was nothing but an uninhabitable desert. The astuteness of the Mussulman triumphed over the intelligence of the French negotiator; for to-day we know that this territory, said to be an uninhabitable desert, holds a population of six hundred thousand souls.

It is the same with this region, situated on the boundary line between reason and folly, which is usually believed uninhabited, but which holds not six hundred thousand, but several millions of inhabitants. It is into the midst of this interesting population that I would conduct you, gentlemen, to study the physiognomy, examining at the same time the customs and appreciating the characteristics.

Gentlemen, the Spanish proverb says:

> "De medico, poeta, y loco
> Todos tenemos un poco."

"Of the doctor, of the poet, of the fool we all have a little."

There are, in fact, but few men who can boast that they have followed during their whole life a line perfectly straight, and to have at all times conducted themselves with perfect reason.

The ingenious poet, who has recounted to us the fury of Roland, shows us the paladin Astolphe transported by special favor to the moon (where, as is commonly known, the reason of the *lunatics* is stored), for the purpose of hunting for the reason of his illustrious cousin, and bringing it back to earth. On his arrival he is received by a venerable old man, who is no other than St. John, the apostle, and who, after having done the honors of the country, conducts him into a species of storehouse or pharmacy, where there are arrayed around in order innumerable phials, each one containing the reason of some mortal wandering down here on earth, and bearing a label indicating the name of the legitimate proprietor. In searching thus for the reason of Roland, he is very much surprised, and even scandalized, to find a bottle bearing the label, "Reason of Astolphe." "How!" he exclaims; "I am not mad! I am positive I have my right mind!" "Calm yourself," says to him the holy apostle; "and since Providence has so favored you, open the bottle and inhale its contents." Astolphe obeyed, and scarcely had he resumed his reason when he perceived that during his whole life he had committed nothing but follies.

But the follies of this order belong to the domain of the moralist, and it is as physician that I would speak to you.

I propose to demonstrate to you that among the fellow-citizens, whom we meet every day, and whom we elbow every instant in the public places, there are a considerable number who, judged by the ordinary rules of diagnosis, could be very justly classed as insane; and, nevertheless, at no epoch of their lives would it have been legitimate to lock them up.

To proceed in some order, and to bring some lucidity into this subject, it is necessary to establish several departments in this vast territory, and to signalize some of the categories in which some of these intellects, often brilliant and even privileged, may be ranged, but which are, nevertheless, in certain aspects, out of gear.

It is incontestable that of all the *reasonable insane*, if I may be allowed such an expression, they are the most interesting who betray their insanity by their acts, and not by their speech.

The first place, by order of merit, belongs then to the *impulsives*. They are the *sick* (I employ this term in a psychical sense), who, without any aberration of judgment, in certain regards, experience an aberration of the will, and can sometimes become criminals.

Among these impulses some are puerile, or at least inoffensive. We all remember the innocent mania of Doctor Johnson, a celebrated author of the last century, who could not promenade the streets of London without touching all the *poteaux a mesure* as he passed them. When he forgot one, he retraced his steps to touch it.

There are other inoffensive types, but with other tendencies which are only hurtful to the subject himself. There are men, polished and well bred, who are tempted every instant to break out in obscene speech; there are pious men who are pushed to belch forth blasphemies. This was the case of another English author, the Bishop Butler, who all his life was tormented by this impulse, and which he resisted only by the most strenuous efforts.

There are also tendencies of this *genre* that may compromise the existence of the individual. A physician, a friend of mine, is consulted by a gentleman bearing a good name, who desired to espouse a young widow, whose moral worth and fortune were all that he could desire. "But," said he, "dear doctor, it is impossible for me to marry her. In fact, my bride demands that I shall come to visit her; but, as she lives in the country, I would have to ride in a railroad, and that is impossible for me, for whenever on a train I am always tempted to throw myself out through the door. I would much rather renounce the marriage." He was advised, in order to accustom himself, to try the belt railroad; but he could never pass beyond Autenil. He had to leave the cars for fear of an accident.

The impulses of this *genre*, which are more frequent than generally supposed, bring us, in a way perfectly natural, to that tendency to suicide which is so often developed in persons otherwise perfectly rational, and impels them to do themselves unto death from motives absolutely futile. Nothing easier than to multiply the examples. It is very evident that in these cases there is either a loss or an enfeeblement of one of the most important of natural phenomena—I mean the instinct of self-preservation.

Immediately after, or by the side of this, comes the homicidal impulse, which often overpowers minds otherwise to all appearances perfectly rational. You all know the case of the shoemaker who came to consult M. Moreau, of Tours, because, as he said, every time he inclined his head forward he experienced a most violent desire to assassinate his wife and children. Add to this fact the lamentable history of Thonvict, who, seized with an irresistible desire to assassinate a woman, finished, after long hesitation, by killing a young girl whom he had never seen before, and whom he accidentally encountered in the kitchen of the restaurant; and you will see that the most monstrous impulses may possess persons perfectly correct in appearance.

Kleptomania furnishes us another example. The disposition to steal small articles has often manifested itself as an infirmity in persons absolutely above and beyond all vulgar temptations. The case of a celebrated statesman is cited, who filled the highest political offices in his country, who, when he dines out, is always accompanied by a valet whose duty it is to return the silver covers which his master never fails to steal.

Certain kleptomaniacs confine themselves to taking certain particular articles, which evidently proves that it is a case of mania.

Peddie reports the case of a very pious man, but who had the unfortunate infirmity of robbery; but he stole nothing but Bibles. His larcenies were pardoned on account of their singularity, but at the seventh relapse he was handed over to justice and sentenced for robbery.

Another kleptomaniac stole nothing but washerwomen's tubs, and as he did not know what to do with them they accumulated uselessly with him.

I was consulted a short time ago by a patient who was possessed by several morbid impulses simultaneously. He was an artist of great talent, who was born in a very inferior condition and provided with only a very elementary education, by the force of will, elevated himself much above his condition. He married young and children came very early, and with them cares. He had to redouble his courage and when about the age of thirty-eight, without any apparent malady, this man's intelligence began to wane. He began to experience the most bizarre impulses, which he resisted only by a grand effort of will. Did he see a glass? There arose within him a most violent desire to break it by a blow of his fist. Was he near a window? The impulse seized him to throw himself out of it to the ground below. Did he receive any bank bills, the legitimate reward of his rude labors? He was tempted to tear them and scatter the fragments to the wind. Finally more terrible impulses came upon him. Every moment he felt himself pushed on to choke his children. His little girl is seized with croup, from which she soon dies. During the last night he watched at her cradle, and according to his own words, "at the very moment when, with abundant tears streaming down, I prayed to God to save the life of the little child, I experienced the atrocious desire to take it from its cradle and throw it into the fire." These impulses increased so upon him as to render life insupportable, and more than once there came the notion of suicide. Finally, the last time he came to consult me, he said to me, after having related all his misery, "This very moment, that I am speaking to you, I feel a most vivid desire to strangle you; but I control myself." This sincere avowal, coming from a man of herculean form, gave cause for reflection. I have not seen him since, and do not know what has become of him; but the most interesting point of this observation is that this man had never committed a reprehensible act, he has always remained perfectly correct and has always been able to control himself at the critical moment. He was, in reality, on the frontiers of folly.

BIOLOGICAL SOCIETY (PARIS) INHIBITION OF NERVOUS CENTRES BY THE APPLICATION OF THE EXCITING AGENTS TO THE PERIPHERY.

At a previous meeting of the Biological Society, Dr. Brown-Sequard made known the anæsthesic phenomena without disturbances of motility that manifest themselves in animals after insufflation into the larynx of carbonic acid, chloroform or ether. In a new series of experiments he has changed the place of application of the irritating agent. He placed in the external auditory meatus of a guinea pig a piece of chloral anhydride; very soon the symptoms of amyosthenic appeared, then complete relaxation of the muscular system; sensibility on the other hand persisting all through. The author lays great stress upon this result; it seems to him to demonstrate that the phenomena vary according to the point of the body on which the irritation exerts its effects. At one time the motility alone may be affected, while at another sensibility alone is destroyed.

ELIMINATION OF BORATE OF SODA.

Dr. Laborde presented a note in the name of Dr. Vigier, in which the author gives an account of the first results of his researches on the physiological effects and elimination of the borate of soda. By the aid of the spectroscope, Mr. Vigier has been able to discover that the borate of soda is eliminated by the saliva. In collaboration with M. Rondeau, he has found that 4 to 5 grammes (a gramme equals 15½ grs.) of this salt can be injected into the veins of an animal with impunity.

OF THE PULSE IN AORTIC INSUFFICIENCY.

M. Franck, after a series of researches which he had on a previous occasion communicated to the Society, had announced that the normal retardation of the pulse was notably diminished in aortic insufficiency. His assertions have been verified by a certain number of clinicians, of whom it is sufficient to mention M. Potain. This verification is, it is true, in contradiction with the generally admitted fact of the diminution of the blood pressure in the course of Corrigan's Disease. In animals, in whom M. Franck produced an artificial aortic insufficiency, the lowering of the blood pressure lasted but a very limited time, and returned very soon to the normal level.

M. Potain, by the aid of his apparatus for measuring the arterial pressure in man, has shown that none of the patients observed presented the lowering of the pressure generally described by authors. Another reason in favor of M. Franck's view is, that in aortic insufficiency, the column of blood being continuous, the liquid waves must move forward much faster than in a case where the aortic valves are normal.

It is well understood that this occurs only in simply aort. insuff. but that if other valvular lesions intervene, or even an aneurism if somewhat voluminous, the retardation may be normal or even augmented, according as the secondary lesions may be of greater or less importance and more or less the effects of the aortic valvular lesion.—*Progres Medic. Tribune Medic.*

INFLUENCE OF TYPHOID FEVER ON SYPHILIS AND GONORRHEA.

M. De Sinetz has made a series of researches on the modifications undergone in their progress by syphilis and blennorrhagia in the female, in the course of a typhoid fever. He has found that the syphilitic manifestations disappear during the evolution of a typhoid fever, but that gonorrhea presents a sort of exacerbation and becomes much more rebellious to treatment. It seems that the liquids produced by patients with typhoid are a good culture medium for the blennorrhagia ferment. Relative to the treatment of gonorrhea from a general point of view, M. De Sinetz declares that he has obtained most excellent results with oxygenated water.

Of all the means employed by him, as ex. permanganate potas., boric acid, coal tar, quinia, etc., oxygenated water is the one that has given incontestably the best result.—*Tribune Medicale.*

Selections.

Relations of Micro-Organisms to Disease.

BY WILLIAM T. BELFIELD, M. D.,

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Sepsis and Antiseptic Surgery.

THE infectious diseases usually consequent upon wounds' and therefore falling within the province of the surgeon, merit somewhat extended discussion. Such diseases were known to the earliest medical writers, and, we may assume, antedate man himself by so much time as the existence of highly organized life preceded him. Clinical experience had, long before the advent of experimental research, identified infectious septic material with the products of that complicated process whereby lifeless organic substances are de- and re-composed into chemically less complex matters—putrefaction; and early experimental investigation was directed to the elucidation of that process and its relations to disease. Gaspard first proved experimentally that the injection of putrefying substances of animal or vegetable origin—blood, pus, bile—was followed by the clinical features of sepsis. Panum demonstrated that the putrid infectious substance is not gaseous; that it is not destroyed by eleven hours' boiling and complete desiccation; that it is insoluble in alcohol, but present in the watery extract of putrid materials, even when dried; that the albuminous matters in putrid fluids are not *per se* septic, but condense the infectious matter upon their surfaces; for the filtrate, containing no solid particles, preserves the septic properties unimpaired. Panum concluded that the putrid agent must be a definite chemical compound like curare and the alkaloids, and named this hypothetical substance sepsin. Billroth, Weber, Hemmer, and Schweninger repeated and confirmed these experiments. The last-named observer concluded from the fact that different results followed the administration of the same quantity of the same putrid liquid at different stages of putrefaction, that not one only, but various putrid products, arising at different periods of the process, possess septic properties. Bergmann and Schmiedeberg obtained from putrefying beer-yeast a crystalline substance, melting on contact with air and charring under heat, which induced in dogs the clinical and anatomical appearances of sepsis. This they termed sulphate of sepsin. Zuelzer and Sonnenschein isolated a similar compound. Hiller and Mikulicz demonstrated that the septic agent of putrid materials could be extracted and retained by glycerine, and in so far was analogous to the active ingredient of vaccine lymph, to pepsin, ptyalin, etc.

It was thus established, and so remains, that the clinical and anatomical features of septicæmia could be induced by unorganized substances obtained from the products of putrefaction. Yet in these cases two characteristics frequently observed in the septic infection of human subjects were often conspicuously absent—the stage of incubation and the infectiousness of the septic blood and tissues. Panum noted particularly that the influence of his boiled putrid materials became manifest in fifteen minutes to two hours, and attained its acme in four to eight hours. Meanwhile a new path of investigation had been opened by Pasteur's demonstration that the putrefaction of animal tissues is a phenomenon incident to the vital activity of certain bacteria—facts established incontestably by the researches of Pasteur, Tyndall, Traube, Brefeld, and their pupils. The determination of the relation between the bacteria and the diseases caused by the putrid products of their vital action soon became the object of most patient and careful investigation. Coze and Feltz found vibrios *intra vitam* in the blood of animals infected with putrid fluids; and similar organisms post-mortem in the blood of a patient dead of putrid infection. With this blood they inoculated a rabbit, which then exhibited septic symptoms, and whose blood was found to contain similar vibrios. Rindfleisch found colonies of bacteria in the heart-muscle from a case of pyæmia; Recklinghausen and Waldeyer followed with similar discoveries. The work of Klebs on "Gunshot Wounds" (1872) opened the new epoch in pathological investigation. The examination of numerous gunshot wounds, both before and after death, showed that the organs and tissues exhibiting morbid changes due to such wounds were populated by bacteria; serous surfaces, both those opened by the bullet and those which, though still intact, lay adjacent to an abscess or to the track of the missile; the walls of blood-vessels, not only those which had been the seat of secondary hemorrhage, but also those which, while not ruptured, showed beginning thrombus formation; metastatic abscesses in liver and lung; leucocytes in and near the track of the bullet—all contained colonies of bacteria. A series of experiments upon animals showed that while the injection of putrid liquids, containing naturally myriads of bacteria, was followed by continuous fever and metastatic abscesses—*i. e.*, pyæmia—the injection of the same liquids after filtering through clay and thus deprived of solid particles, including the organisms, was followed by fever just as intense, though transient, but never by metastatic abscesses—*i. e.*, septicæmia.

The work of Klebs, which proved that there must be some intimate relation between the pathological processes and the bacteria, was soon followed by a series of accurate experimental observations by Samuel, from which he concluded that the varying effects of putrid fluids upon the living animal were due to various substances therein contained; that the specific septic (toxic) influence is the effect of certain volatile matters, probably combinations of sulphur and of ammonia; to the bacteria he ascribed the influence whereby the infection is localized progressively in various organs remote from the original wound.

Billroth concluded, as the result of much careful clinical and experimental observation, that the presence of bacteria was the result and not the cause of certain changes in secretions and tissues. He assumed the formation, during inflammation and putrefaction, of a "zymoid" substance whose presence (1) conferred upon pus and exudate their infectious character and (2) converted wound secretions into favorable soil for organisms. He believed, however, that bacteria might be the means for transporting and multiplying his hypothetical zymoid, and in this capacity might be, probably are, the carriers and originators of specific pathological processes. Since the publication of this work (1874), Billroth has materially modified certain of his conclusions.

From these investigations it was generally concluded that septic infection was due to an unorganized though perhaps organic substance; that the presence of bacteria was an epiphenomenon—a sequence, not a cause; that their deleterious agency, if any, consisted simply in the transfer of unorganized infectious matters from one part of the body to other portions, perhaps from one individual to another.

But there soon appeared from various sources, notably Koch and Pasteur, investigations more or less incompatible with these views. Pasteur found that in the serous sacs, muscles, liver, and spleen of a septically infected animal there are always present microscopic organisms (*microbe septique*), although the blood may be until death free from them. Inoculation with a drop of peritoneal serum, or a piece of muscle from an animal dead of sepsis, induces, in a second animal, all the appearances, ante- and post-mortem, of the original disease; while a drop of blood from the heart-cavity (proven microscopically to contain no septic vibrios) is, on the contrary, innocuous. Pasteur cultivated his vibrio septique in various fluids, such as solution of beef extract, in the manner already described; and found that a drop of fluid from the last flask, containing presumably none of the original unorganized septic matters, but crowded with the vibrios, produced the original septic disease In the tissues of infected animals Pasteur was unable to find any unorganized substance capable of inducing sepsis, as had been affirmed by Panum, but he found that a putrid fluid, a few drops of which induced sepsis and death, lost its poisonous properties entirely in a few hours, when exposed in a thin layer to the air. Now, since the vibrios likewise lose their vitality in a few hours in the presence of free oxygen, Pasteur insists that the loss of virulence in the fluid is due solely to the enforced inactivity of the contained vibrios. Yet he is inclined to the belief that just as the alcoholic fermentation of grape sugar is a vital phenomenon manifested by any one of several species of fungi, so the production of septic substances may accompany the vital activity of any one of several different bacteria.

Pasteur further reports that among the organisms usually present in ordinary water is one identical morphologically with the bacteria termo, but physiologically distinguished by the fact that its injection from an isolated cultivation under the skin of a rabbit is followed by abscess formation at the site of puncture. Injection of the same organisms directly into the circulation, or in several places subcutaneously, is followed by the formation of abscesses in lungs and liver; by fever and death—in short, by pyæmia. A piece of the liver or lung develops, in a culture liquid, the same micrococcus in great numbers. Such liquid, if previously boiled, however, so as to destroy the organisms therein contained, causes, upon subcutaneous injection, abcesses as before, but without general infection of the animal. He rejects, therefore, for pyæmia as for septicæmia, the agency of an unorganized, soluble septic agent, and considers the bacteria alone responsible for septic infection.

Markedly different was the reception accorded to a monograph published in 1878, by a then almost unknown young German physician, Robert Koch. He surmounted, by improvements in technique, some of the hitherto insuperable difficulties in the recognition and investigation of bacteria—improvements which confer such evident and extreme advantages that they have become absolute necessities for original research in this field; indeed, so many errors of commission, as well as of omission, have been thereby detected in other methods, that one is disposed to regard as uncertain any researches in which these measures most essential to accuracy of observation are neglected. Having demonstrated the life history of the bacillus anthracis, which the French school, working with Pasteur's clumsy method, had for sixteen years failed to discover, Koch turned his attention to the etiology of surgical infectious diseases. He found that the subcutaneous injection into a mouse of five drops of putrid blood was followed by immediate prostration, and in four to eight hours by the death of the animals. There occurred in these cases no local reaction, the internal organs were apparently normal, no bacteria were detected in the blood or tissues, inoculation of other animals with the blood from the heart caused no perceptible effect. Koch considers this disease, therefore, as septicæmia, etymologically as well as clinically—the introduction into the blood of a poisonous substance, soluble, not reproducing itself, analogous, in fact, with the effect of certain vegetable alkaloids and of ptomain, the substance isolated by Selmi from human corpses, which so closely resembles atropine in its physiological effects. This is also the effect obtained from the injection of boiled putrid materials by Panum, Bergmann, and Schmiedeberg, and others. Koch found, however, that the injection of a smaller quantity, one-half to one drop of the same putrid blood, was followed by entirely different effects. In some cases the mouse was apparently unaffected; in others brief, transient depression was observed; in perhaps one-third of the cases there ensued, twenty-four hours later, progressive weakness, retardation of respiration, drowsiness, and, in forty to sixty hours, death. Section revealed no other pathological changes than local œdema at site of inoculation and decided enlargement of the spleen; but after inoculation of a second mouse with a minute quantity (one-tenth to one-half drop) of liquid from this œdema, or of blood from the heart, the latter animal presented, in forty to sixty hours, precisely the same clinical and pathological picture as the first; from the second, a third was successfully inoculated, and so on *ad libitum;* indeed, the mere contact with a fresh wound of a scalpel-point previously dipped in the septic blood sufficed. Here, then, was something entirely different from the intoxication following injection of a larger quantity (five to ten drops)—differing in the existence of a marked stage of incubation, of local reaction, and in certain and uniform infectiousness. The blood of such an animal evidently contained something not present in that of the former mouse—a something requiring time for the manifestation of its influence, and finally distributing itself through the entire blood-mass, so that each drop thereof possessed the septic possibilities of the original putrid drop. Such mode of action implies reproduction, and reproduction is a characteristic of organized matter. It was to be expected *a priori*, therefore, that the blood contained organisms; Koch found, in fact, invariably, that the blood serum, white blood-corpuscles, and various tissues of such animals, swarmed with minute rods, which stained readily with aniline colors, and when removed from the body into similar artificial conditions multiplied by transverse fission. Since the blood of the infected and infecting mouse differs evidently from that of the intoxicated and non-infecting mouse only in the presence of these bacteria, Koch ascribes the infectiousness to these organisms. It is interesting to note that all attempts to inoculate rabbits and field-mice with the septic blood were fruitless. The animals remained unaffected; no bacilli were found in their blood, although the mouse-blood used for inoculation was full of them. Further, that although the putrid fluids injected contained organisms of numerous varieties—micrococci, bacteria, bacilli—all of which were subsequently found in the local œdematous liquid, yet only one species, the minute bacillus, was found distributed throughout the blood and tissues. The living mouse seemed to be a culture-medium for isolating these from the other varieties, to whose growth the animal's tissues were less perfectly adapted. In the second and third mouse successively inoculated only the specific bacilli were found.

By methods essentially similar, Koch demonstrated the association of a form of septic infection of mice, which he denominates malignant œdema, with a micrococcus species; of septicæmia in rabbits with a bacterium; and of pyæmia (with metastatic abscesses) in the latter animal with a micrococcus variety. Yet, although the fact of association was amply demonstrated, there still remained the possibility of objection that the essential agent in the infection was a soluble, unorganized substance contained in the putrid liquids and the infectious tissues used for inoculation, the bacteria being the result and not the cause. The final demonstration to the contrary, the proof that these different effects could be induced by inoculation with the respective bacterial varieties after complete isolation from accompanying animal tissues by cultivation upon solids, was not furnished at the time of this publication by Koch, but has been subsequently completely established by Koch, Gaffky, and Loffler in the laboratory of the German Health Bureau, for the bacilli of mouse- and the bacteria of rabbit-septicæmia. The extreme accuracy and critical supervision of manipulations, the logical sequence of methods, and withal the unpartisan candor and earnest desire for truth evident throughout this work of Koch's, inspired at once a confidence which has not as yet been diminished or betrayed. It is worthy of note that the infectious disease of mice described by Koch as malignant œdema is identical in clinical and pathological appearances with that which Pasteur ascribes to his "vibrio septique;" while the pyæmia of rabbits corresponds accurately with the purulent infection which, according to Pasteur, follows the injection of his microbe of pus. These results, obtained quite independently by two observers, using different methods, have been confirmed not only by Gaffky and Loffler, but also by Rosenberger in Wurzburg, in a series of carefully performed experiments.

Raynaud and Lannelongue inoculated rabbits with saliva from a child dead of rabies, and induced thereby an infectious disease, terminating fatally in forty-eight hours or less. Pasteur found in the blood of these animals a bacterium which he regarded as the cause of the disease. Inoculation of rabbits with saliva from children dead of broncho-pneumonia caused the same result, and produced the same figure-of-8 bacterium. The same organism was found in the saliva of a healthy adult. Sternberg found that injection of fresh saliva from certain healthy individuals caused a similar fatal infectious disease, which he calls septicæmia, in rabbits, characterized by the presence of a micrococcus apparently identical with Pasteur's; and asserts that this organism, isolated by flask cultures, induced the disease again upon subcutaneous inoculation. Neucki and Gautier isolated from saliva a substance capable also of producing fatal infection of certain animals. Saliva, then, can also induce septicæmia, not only after death of the subject, but even fresh from the living individual. Whether the effect shall be ascribed to a contained bacterium or not is immaterial to our present purpose, which is to emphasize the fact that the group of phenomena called in general septicæmia may follow other causes than putrid infection; may be induced on the one hand by the vital action of isolated bacteria, and on the other by unorganized substances—the boiled septic materials of Panum and Rosenberg, the sepsin of Bergmann, the fibrin-ferment of Edelberg, pepsin and trypsin of Bergmann, hæmoglobin, etc.

A Case of Paralytic Insanity—Caused by Vaccino-Syphilitic Inoculation.

BY J. E. BENNETT, M. D., FORT SMITH, ARK.

ABOUT October 1, 1863, smallpox having broken out among the federal troops stationed in and around Fort Smith, a general order was issued, directing that the officers and soldiers be promptly vaccinated. In obedience thereto, the work of vaccination began, and was pushed vigorously, including not only the soldiers, but citizens—men, women and children—who embraced the opportunity to protect themselves against the invasion of *variola* by a timely vaccination. Soon many hundreds of both citizens and soldiers found themselves with ulcerated arms, presenting all the characteristics of well defined *chancres*, the ulcers being cup-shaped, with smooth cut-edges and bases distinctly indurated.

Among these unfortunates was the subject of this article, Lieutenant S., who, with his company, stood in line with bared arms, and were vaccinated, generally above and below the elbow. The task was performed by the assistant surgeon of the regiment, by scratching or gashing the arms until the blood flowed, and then dipping the lancet into a ripened pustule on a comrade's arm, and then introducing the virus. The operator passed rapidly from one to another, from the head to the foot of the line, and without once taking the precaution to wipe the bloody lancet until the barbarous work was completed. The arm of Lieutenant S. rapidly ulcerated at the two points of puncture, and spread rapidly until the ulcers were from two-and-a-half to three-and-a-half inches in diameter. Their unusual size was due, doubtless, to the irritating local applications used, in efforts to quickly fit the soldier for duty. In this case the well-marked physical signs of constitutional syphilis were observed within six to twelve weeks after the vaccination. The glands of the neck, throat, axilla and inguinal regions were attacked, but the cervical suffered most. The Submaxillary and right parotid became gangrenous, and nearly all the parotid sloughed away. About this time he placed himself under the care of a citizen surgeon, who very properly gave him a constitutional treatment of that great "sheet-anchor," mercury. Acid nitrate of mercury was applied locally to the ulcers, which gradually healed, and he rejoined his regiment in 1864, and from that time to the close of the war continued to perform heavy duty. During this time, and for fifteen years subsequently, or until 1880, secondary eruptions occasionally appeared upon his body and extremities. The tonsils and fauces continued to exhibit a hyperæmic condition, with often more or less ulceration. I have at various times prescribed for him, and have had him under my observation since 1866. The disease continued to manifest itself occasionally during this time, but always readily yielding to the "mixed" treatment.

About April, 1880, symptoms of mental aberations became manifest. He did strange and unusual things; among others attempting to purchase all the furniture contained in three large wholesale factories in the city, for the purpose of furnishing his many hotels, located at Eureka Springs, in this State. There he also claimed to have large landed interests, two large steam saw-mills, and a number of "cattle upon a thousand hills." The truth is, however, that he was very poor, and entirely unable to provide for the necessary wants of his family. He thus exhibited the delusion of grandeur. He became very talkative, but could not bear to be contradicted, becoming very impatient thereat. This continued for a time, and then the organs of speech became involved, the utmost difficulty attending the expression of many common words. Next he became enfeebled in his lower extremities, and his gait consequently very unsteady. The flexors of the leg would contract very suddenly, raising the foot abnormally quick, and it was then replaced by two distinct motions, the heels striking the ground first in walking, and the knees bending as though laboring to support the body; thus evidencing locomotor ataxy, due probably to a sclerosis of the posterior columns of the spinal cord, or the "sclerosis of Charcot," as it is sometimes termed. The patient having but one eye, inequality of the pupils could not be tested. He gradually became morose, and moody, and moped about the house for many months, seeming in a state of melancholy. Then a remission of the symptoms occurred and he appeared to be recovering, being at times talkative, cheerful and quite rational, so that his family, who believed the apparent improvement to be permanent, permitted him to go up town and back every day unattended. A few months of this seeming cessation of the disease, or rather lucid interval between the attacks, was abruptly ended on the 22d day of April, 1882, when, while walking along the street, he was seized with an epileptiform convulsion. He was carried to his home, and on being summoned, I found the right side of his face and head extensively contused from the fall, and the patient wholly unable to give any account of the injury. The family were then charged not to let him go upon the streets alone again. From this time he remained morose and glum, until on January 13, 1883, when at 4 A. M. I was again called, and found him having violent epileptiform convulsions, the convulsive movements being most marked on the right side. I gave him hypodermic injections of belladonna and chloral into the arm, and at 6 A. M. the convulsions ceased, leaving him still in a comatose condition. Dr. E. R. Du Val, of this city, was then called in consultation with me. The coma gradually passed off, but the patient was unable to articulate more than "yes," or "no." This inability to speak was due to loss both of diction and articulation. We diagnosed a lesion of Broca's center of speech, or the third convolution of the anterior lobe of the left hemisphere of the brain. Paralysis of the rectal and cystic muscles was also present, and since the above date his urine and fæces have been passed involuntarily. Great difficulty of deglutition was present, and even liquid food when placed in his mouth with a spoon, is swallowed with much effort.

As soon as he was able to walk, unaided (about Jan. 26), he wandered through the house constantly, "turning everything upside down," and could only be quieted by placing his spectacles on his nose and forcing a book or paper into his hands (the finer the print the better he seemed to relish it), and then he would sit for half a day trying to spell out some certificate of cure in a patent medicine almanac. Once I spent a quarter of an hour trying to teach him to say "1883," but failed. About January 31, he eluded his guard, and wandered about one mile from home, where he fell down in the road from sheer exhaustion. He was brought back in a vehicle, and since then keeps his bed, being too weak to walk. He is now very quiet, and seldom utters even "yes," or "no." I can not prevail upon him to protrude his tongue, which has probably been rendered involuntary in its action by the paralysis. His pulse is 50, respiration 15, and temperature normal.

The case is undoubtedly one of paralytic insanity, and its fatal termination only a question of a short time. I believe his condition to be the result of vaccino-syphilitic inoculation, by the admixture of the blood of a soldier laboring under syphilis in its primary or secondary form, by the careless use of a bloody lancet in the vaccinations. What I have seen of the results of the above-mentioned army vaccinations in Fort Smith, has confirmed me in the opinion that only quill, ivory or other points should be used in vaccinations; the point being used on only one person and then thrown away, no danger of transmission need be apprehended. But if vaccine matter is used in bulk, and a lancet or vaccinator required to introduce it into the arm, you always run the risk of transmitting syphilis or other dyscrasias, by the re-use of the instrument. It has been demonstrated that syphilis may follow a vaccination by a lancet which has been laid away for seven weeks, with an almost imperceptible spot of dried blood upon its blade. Prof. Gross, in his last great work, in discussing this subject, says: "And during the late war numerous cases occurred in which it (syphilis) was communicated by vaccinating soldiers with lymph from infected persons."

In conclusion, I desire to state that if the publication of this article shall have the effect of stopping a single medical man from spreading the loathsome, not to say horrible disease of syphilis broadcast, by inducing him to use only the vaccine points as above indicated, I shall feel that I have done humanity a service.—*Southern Practitioner.*

Causes and Prevention of Insanity.

Dr. H. Wardner, Superintendent of the Illinois Southern Lunatic Asylum, writes as follows:

A large percentage of those admitted are enfeebled by exposure and overwork, and present the appearance of having been insufficiently nourished. Anxiety, domestic trouble, and vicious personal habits are active causes in producing mental alienation. The majority of people, especially in the agricultural districts, are not students of hygiene. They may give much attention to the welfare of their domestic animals, but they are inattentive to the conditions necessary for the health of themselves and their families. Their houses are too often located and constructed without regard to proper sanitary conditions. The desire to "get on in the world" prompts many to take the best part of their food products to market, and reserve what is of inferior quality for home consumption. Besides being defective in quality, the food eaten is often deficient in variety, if not in quantity, and there is great lack of knowledge among the people as to the best methods of preparing and cooking it so as to make it the most nutritious. The waste of nerve and muscular tissues, caused by work and worry in the struggle for success in life, must be restored through the processes of digestion and assimilation. Unless food is of proper quality, suitably prepared and taken in sufficient quantity, the demands upon the strength and powers of endurance of the individual will exceed the supply, and exhaustion of the nervous forces and bodily disease must result.

Country life affords but few amusements and instructive diversions. To alleviate the conditions and effects of hard labor (which, with those who feel themselves driven to it by necessity, becomes mere drudgery), the home should be made cheerful and attractive, and the cultivation of the social faculties in a manner to elevate and improve the mind should be strongly encouraged.

The lack of proper mental discipline and control over the emotions and passions is a prominent factor in the production of insanity. The truth of this becomes evident by comparing the ratio of insanity among the educated classes with that of the insane among the uneducated. Few moral causes are more dangerous to the integrity of the mind than the frequent surrender of the reason or power of self-control to the influence of the emotions or the impulses of passion. The subversion of the God-given power of reason and self-control may and does occur in consequence of physical disease, but it also occurs in consequence of ignorance and a lack of that mental and moral discipline necessary to healthy mental action.

If the foregoing statements are correct, they lead us to the conclusion that a very large percentage of the existing cases of insanity might have been prevented by removing the cause, and that the afflicted are more or less responsible for their own misfortunes. Proper instructions given by teachers in our schools and by the medical profession to the people at large would prevent many an attack of insanity and lessen the ever-increasing proportion of the insane, thereby adding to the productive forces of the country and diminishing the expense incurred on account of the dependent classes.

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Baltimore Academy of Medicine.

Stated Meeting Held February 20, 1883.

Specially Reported for the Maryland Medical Journal.

Specimen of Intra-Mural Fibroid.—Dr. H. P. C. Wilson exhibited a specimen of a fibroid tumor removed from the cavity of the uterus. The tumor, of which the largest portion was shown, filled the uterus and by its size blocked up the entire pelvis so that the finger could, with difficulty, enter the vagina by its side. The history of the case was as follows: Mrs. B., æt. 34, married 6 years; never pregnant; menstruated, first, at 12 years; first perceived a tumor in her right groin twelve years ago. After this she had pain referred to the uterus, which at times was represented to have been severe. She first consulted Dr. Wilson two years ago. A diagnosis was then made of intra-mural fibroid tumor of uterus. The patient was advised to return home, and when the size of the tumor or the gravity of her symptoms should increase so as to cause great uneasiness or suffering, to present herself again. She accordingly returned January 24th, 1883. She was then so offensive as to fill the office with a disgusting odor. On examination a black sloughing fibroid tumor was found occupying the entire uterus, giving rise to a bloody, sanious and purulent discharge. Since her previous visit, two years before, she had suffered every month from extreme metrorrhagia. She now had hectic fever, with a pulse of 140, temperature of 103°, respiration of 32, was feeble, perfectly anæmic, and nervous to an extreme degree. Removal was advised, and the operation was performed January 26th, 1883, at St. Vincent's Hospital. Having been given some whisky and then put under the influence of chloroform, unsuccessful attempts were made to throw the chain of the ecraseur around the tumor. Dr. Wilson then cut into the tumor with ordinary curved scissors and with saw-scissors, and pulling it down with a tenaculum, cut the mass away piece-meal. The specimen exhibited showed, perhaps, two-thirds of the tumor, a great deal being thrown away and washed away. The operation was tedious, requiring two hours. The tumor being thoroughly removed, the cavity of the uterus was washed with warm water and then mopped out with carbolic acid and Monsel's solution. The operation was accompanied by very little hemorrhage, Dr. Wilson thought at first the patient would die of septicæmia, but she is so far doing well.

The first operation of this character which Dr. Wilson performed was done ten years ago, the case being reported in the *Richmond and Louisville Medical Journal.* The symptoms in that case closely simulated those of labor. The tumor tightly filled the pelvis and presented at the vulva, requiring to be cut away piecemeal. The patient recovered.

Specimen of Dermoid Ovarian Cyst Removed From a Pregnant Woman.—Dr. Wilson also exhibited a specimen of a dermoid cyst of the ovary removed to-day. The history of the case was as follows: Mrs. L., of Maryland, æt. 29, married seven years; menstruated first at 13; has had three children, the youngest now 3 years old. Eight months after the birth of her last child she first noticed a commencing enlargement in the right side of her abdomen. Her menstruation ceased Sept. 5th, 1882, having been perfectly regular previously. She has had slight nausea since. Her appearance was ruddy and healthy, and entirely different from any ovarian case he had seen. The uterus containing a supposed fœtus was found lying more to the left side. The fœtal heart-beat was not heard nor the placental souffle. There was doubtful fœtal movement on the left side. The clearness of resonance on percussion in the right lumbar region was doubtful, whilst in the left lumbar the resonance was obscure. The diagnosis made was pregnancy at between four and five months, with ovarian tumor growing from the right ovary. Removal was advised and effected today under chloroform. An incision 3½ to 4 inches was made in the median line. Dr. Wilson here insisted upon having the incision of sufficient length. Two inches might have been gotten along with in this case but the larger incision allows the operator to see better what he is doing, facilitates manipulations and ligation of vessels, and heals as well as the shorter one. On opening the abdomen the fundus uteri presented itself as a hard, red body. The ovarian cyst appeared to have formed no adhesions and came out readily. It was then found, however, that it had strong and inseparable attachment to the fundus uteri as well as to the ovary. It was therefore found necessary to transfix the attachments with a needle armed with a double ligature and to cut through them. The pedicle was then treated in the same way, the stump being touched with Monsel's solution. No effusion took place into the peritoneal cavity. The abdominal incision was closed by several silver wire sutures. There was no shock. Shortly after the operation the patient complained of severe pain in the lower abdomen and of vesical tenesmus, but the bladder was found to be empty. For the relief of this symptom a large dose of Magendie's solution was given hypodermatically. The great danger to be apprehended in the case is miscarriage.

The diagnosis of this case had been simple ovarian cyst; the fact of its being dermoid was not known until after its removal. The cyst, which was the first of the sort Dr. Wilson had removed, contained cheesy-looking matter, hair, etc.

CLINICAL DIAGNOSIS OF CHRONIC ENLARGEMENT OF THE TESTICLE.—Dr. Michael read a paper with this title, as a thesis in application for membership, the same having been approved by the Executive Committee. This paper is published elsewhere in this number.

VACCINATION.—The regular paper of the evening was then read by Dr. I. E. Atkinson, who chose vaccination for his subject.

He began by stating his belief in the view that vaccinia, as produced by vaccination, is modified variola, contrary to the deductions of Chauveau and the Academy of Sciences of Lyons. The results upon which these deductions were based, viz., the unsuccessful inoculation of various animals with small-pox virus, and the communication of small-pox to children inoculated with the scrapings of the sites of the inoculations in the animals, he thought were explicable upon the view that the virus was simply deposited unchanged beneath the skin and in this unchanged condition was transferred to the arms of the children, whereby they got small-pox instead of vaccinia. And against the French negative experiments may be placed the positive ones of Badcock and

Ceely, who successfully inoculated animals with variolous virus, obtaining thus a stock of vaccine lymph which was successfully used in vaccinating a great number of persons. Dr. Atkinson also referred to the experiment of the late Dr. S. T. Knight, of Baltimore, who (*Balti. Med. Journal*, 1870) inoculated a heifer with small-pox virus, thereby obtaining lymph with which he was always successful in vaccinating.

When we vaccinate a person, therefore, we communicate to him small-pox, but small-pox modified from its passage through the absorbents of the skin. We can not explain this any more than we can explain why inoculation, as formerly practiced, gave rise to modified small-pox by the entry of the virus through the same medium, while the same virus inhaled might produce the most violent forms of hemorrhagic or confluent variola.

Dr. Atkinson thought that vaccination is less protective now than in Jenner's time, and cited extensive statistics to prove this point. Why this is so we do not know.

Further susceptibility to vaccination in those who have had small-pox is no evidence of the degree of susceptibility to small-pox in such persons.

Protection is in proportion to the number of scars the individual bears, *i. e.*, to the number of points through which the virus has gained admission to the system. This is a practical point, the truth of which has been proven by the statistics of the London Small-Pox Hospital, as published by Marson, to which too little attention has been paid of late years.

As to the protection, if any, afforded the fœtus-in-utero by vaccination of the mother, several experiments are recorded. Rickets inoculated pregnant sheep with sheep-pox virus, and it was found that the lambs when born were insusceptible to the disease. Other experiments in the human being are recorded. Dr. Atkinson saw a woman, under the care of Dr. John G. Womble, who immediately preceding her confinement was living in a room with a case of confluent small-pox. She was successfully vaccinated, and six days and nineteen hours after gave birth to an apparently healthy child. Three days after her labor her child was attacked with the disease, but of the discrete variety, and recovered without secondary fever or subsequent pitting. He thought the results of this case indicated a protection.

With regard to communication of disease by humanized virus, it may be said that the danger of transmitting syphilis is very, very, small; of scrofula nil, whilst with regard to tuberculosis it can not at this time be estimated.

In looking up the statistics a marvelous success is found to be reported by some authorities from the use of bovine virus. For instance, Warlomont, of Brussels, states that of 10,000 children thus vaccinated not one contracted small-pox during the epidemic of 1869-70.

The degree of success from bovine vaccination varies; Martin obtained 73 per cent. of successes, whilst of 14,849 primary vaccinations in Amsterdam, it is reported that not one failed. This disparity of results shows either the use of different methods of vaccinating or else of preserving the virus.

The difficulty of correctly diagnosing a successful vaccination can only apply to secondary cases. Dr. Atkinson believed that the red raspberry-like tubercle, often met with in secondary vaccinations, is a specific result of the virus, because it is not met with as the result of ordinary irritants. Hardaway states that it occurs after the use of humanized virus, a statement which the speaker could not confirm from personal observation. The pustules and scabs, etc., are also probably of a specific nature, but whether as the result of the virus or of other elements in the matter employed was not certain. Only this is certain that they are not indicative of successful vaccination and are purely local affections

A great many cases of small-pox have been reported in which the vaccine physicians of Baltimore state that successful vaccination has been previously performed, but such cases have not been observed by the speaker.

Dr. Atkinson stated that 175,000 vaccinations have been reported by the regular vaccine physicians, 20,000 by the physicians appointed by the School Board to vaccinate the children in the public schools, and 5,000 to 10,000 by physicians employed to do special work.

Dr. Atkinson had seen infants apparently insusceptible to bovine virus of all kinds who have "taken" readily upon the use of humanized virus. Two such cases have just been under his observation

Do such facts indicate that we have gone wrong? Dr. Atkinson believed that our method of preserving the virus was faulty. If the virus contain the contagion of syphilis, this disease may develop even though it be free from blood and pus.

However, so far as times of epidemics are concerned, human virus can not be depended on because it can not be supplied in sufficient quantities to meet such a demand as then arises. If we depended upon it we would have vaccine famines.

His impression was that small-pox had become more prevalent during the last decade, *i. e.*, since bovine virus had come into general use. And there would seem to be something interfering with the absorption of this sort; hence humanized virus should be used in those who have been exposed to the contagion of small-pox.

Are our sources of animal virus good? The results of observations of Pissin, in Germany, show that animal lymph taken on the eighth day generally gave negative results; whereas, taken at the right time, it almost invariably gave successful results; also that animal virus taken in tubes fails more often than the humanized virus.

The inferior quality of bovine lymph may be explained in times of great demand by the desire to get as much from the vesicles as possible. Hence, as the lymph becomes exhausted, blood and pus are taken up on the quills, etc., and pus at least is irritating.

Dr. Atkinson's conclusions were that humanized virus should be used preferably, a few removes from the cow being best; that the arm to arm vaccination as practiced in England is to be advised and the lymph taken on the seventh day.

Dr. H. P. C. Wilson had always been unwilling to use bovine virus. Had never seen strawberry crust until the bovine virus came into use. Had no fear of communicating disease by human virus. Had used virus obtained from a child with whooping cough with perfect impunity.

Dr. Browne used bovine virus in a family with the result of seven failures, and but one success, four or five of them being primary cases. He then revaccinated the seven with the crust from the arm of the successful case and all took.

Dr. Chisolm pointed out the prevalence of small-pox among German immigrants. There would seem to be a larger proportionate number among them than among others.

Dr. McKew said that all the cases he had seen during the present prevalence of the disease had been among Germans or their immediate descendants. In the records at the Southern District Station House but one case was reported in an Irishman, and this proved fatal.

The difference in results abroad and at home, referred to by Dr. Atkinson, might be explained by the fact that in Europe the vaccine virus is under the control of the government; whereas it is with us an article of commerce, in the sale of which any one may engage.

Dr. W. C. Van Bibber has used four kinds of matter in vaccinating, viz: *a*, that (Jennerian) gotten from his father-in-law, Dr. Peter Chatard; *b*, that obtained by Dr. Leonard, formerly City Physician, by inoculating the cow with small-pox virus; *c*, that obtained from Dr. Knight, and of a similar origin with the last-mentioned; *d*, animal matter, of Beaugency origin, since 1872. As near as he could estimate he had vaccinated over 10,000 persons, and he had preserved records of the results from each of the four varieties named. He never knew of small-pox occurring in a single one of the cases when the vaccination was successful, except on one occasion, the exception being a physician who took varioloid.

Dr. Atkinson closed the debate by remarking that we can always tell by inspecting the scar whether the pustule had matured and the crust fallen off in a typical manner, or whether, having been destroyed, the resulting ulcer healed by granulation. In the latter event a firm, smooth, white scar would result. As to protection afforded by a pustule that had followed the latter course, he believed that it depended upon the date of the destruction of the vesicle; if before maturation he thought protection was not conferred; if after maturation he thought the vaccination effective.

Revivification.

BY S. WATERMAN, M. D., NEW YORK.

THE following two cases are selected to show the necessity of making persistent efforts at revivification in cases of sudden death, especially from heart disease, as well as in cases of still-born children.

There is no doubt in my mind that in many cases of sudden death, especially from heart disease, prompt and persistent efforts to reanimate the apparently dead person may result in restoring life. It is probable that in many instances the heart's action may fail from transient causes; a dangerous syncope may supervene, and unless timely efforts are made, and proper measures are promptly resorted to, the person may pass from a state of suspension of vitality into the silent and lasting embrace of death.

A case in point happened to me in the month of February, 1880. Mr. B——, a gentleman of sound constitution, about six feet in height, springing from a healthy ancestry, aged eighty-four years, had an attack of senile gangrene in the inguinal region, two inches and a half in length, and one inch wide. The slough was in time thrown off, and healthy granulation filled the wound. A second attack subsequently, not quite so severe, destroyed a part of the integument in the umbilical region. Its cause and final cure was similar to the first attack. The third attack was in the great toe of the left foot. The entire toe perished, but a line of demarcation formed, the destructive process went no farther, healthy granulation formed, and the healing process progressed in the most healthy and satisfactory manner. Mr. B—— suffered in addition from valvular disease of the heart, and likewise from Bright's disease (granular degeneration), probably in consequence of retarded circulation and diminished blood-pressure. One morning while I was sitting at his bedside, and in friendly conversation with him, he being to all appearance in a very happy mood of mind, he suddenly fell back, his eyes became fixed and glassy, a deadly pallor crept over his countenance, respiration and the heart's action ceased simultaneously, and death seemed to have carried him off suddenly and unexpectedly.

It was this suddenness of the event that impelled me to make efforts at revivification. Two nephews of Mr. B——, who were fortunately in the house, were brought under requisition, and under my direction systematic artificial movements were carried on for nearly thirty minutes. Then, to my unspeakable satisfaction, one deep inspiratory effort was made by the patient himself. Thus encouraged, we redoubled our efforts for ten minutes more; other inspiratory efforts followed in quicker succession, the heart began to respond, hardly audible at first, it required force and momentum; it could now be felt at the wrist; the deadly pallor passed away, the eyes lost their glassy, fixed aspect, sighs and groans could be heard, twitchings of muscles of arm and fingers could be distinctly felt, and the rigidity of death made way for reanimated conditions.

He lay unconscious for more than ten hours, respiration being hurried, and breathing stertorous, the heart's action wild and irregular. During the night he was delirious and restless. Toward morning all untoward symptoms subsided, and a quiet sleep followed the extreme restlessness.

When I saw him next morning he sat up in his bed and partook of a good breakfast. Consciousness had returned, and all the life functions were in full operation. He died six weeks afterward under symptoms of uræmic toxication. During these six weeks, up to the hour of his death, he had several other attacks—one very prolonged and almost fatal—during which my son, M. W. Waterman, attended. Artificial respiration was resorted to with the same success.

Case II.—Mr. E—— called upon me during the winter of 18—, to obtain a death certificate for a still born child of seven months' gestation. I expressed a desire to see the child, and promised to visit him during the day. A midwife had assisted during the delivery. It was a cold stormy day and 1 P. M. before I arrived at Mr. E——'s house. He lived in a low basement. Mr. E—— was a Hebrew, and according to Hebrew rites, the child had been laid upon a little straw upon the ground, and covered with a light black shawl. It had thus been lying since 5 A. M. As I was examining the child, I could detect some slight twitching movement over the region of the heart. I watched attentively, and I observed the movement again. I had the child removed from the ground and placed upon a pillow on the table. The child was as cold as ice but not rigid. I could detect no heart's-sound, nor any respiratory murmur, but the muscular twitchings were very evident. I immersed the child in a hot bath, and initiated artificial respiration. Twenty minutes passed in this seemingly hopeless work. Then the child opened its eyes. A little more work and respiration began, laborious and interrupted at first, more normal by degrees. The heart's action came up in good style, and a human life was saved! The child thus saved is now one of the most accomplished violinists in this city.

The preceding cases are well calculated to rouse our most serious attention. How often has it been within reach of the physician thus to save life if but strict and critical performance of duty had been attended to! How often are certificates of death written out without first scrutinizing the body, and ascertaining, by all means at our command, whether death has really claimed his victim irrevocably. Mr. B——'s case, especially, offers much encouragement to try revivification in sudden deaths, especially in heart disease. One case thus given back to life and light forms a recollection bright and pleasant upon the thorny path of a physician's life.—*Medical Record.*

Gleanings.

Mullein Plant in the Treatment of Pulmonary Conumption.—F. J. B. Quinlan, M. D., M.R.I.A., F.K.Q.C. ., Physician to St. Vincent's Hospital, Dublin, observes hat "from time immemorial the Verbascum Thapsus, or reat Mullein, has been a trusted popular remedy in Ireland, or the phthisis." After relating seven cases where it roved of benefit, he concludes, "I have set down the bove cases simply in the order in which they occurred, and ith no view of supporting any preconceived idea. These ases, although too few to justify any general conclusion, ppear to establish some useful facts. The mullein plant oiled in milk is liked by the patients; in watery infusion it disagreeable, and the succus is more so. The hot milk ecoction causes a comfortable (what our Gallic neighbors all *pectorale*) sensation, and when once patients take it they xperience a physiological want, and when the supply was nce or twice interrupted, complained much in consequence. hat it eases phthisical cough, there can be no doubt; in ct some of the patients scarcely took their cough mixtures t all—an unmixed boon to phthisical sufferers with delicate omachs. Its power of checking phthisical looseness of ie bowels was very marked. and experiment proved that his was not merely due to the well-known astringent proprties of boiled milk. It also gave great relief to the yspnœa. For phthisical night-sweats it is utterly useless; ut these can be completely checked by the hypodermic use f from the one-eightieth to one-fiftieth of a grain of the trophia sulphate; the smaller dose, if it will answer, being referable, as the larger causes dryness in the pharynx, and nterferes with ocular accommodation. In advanced cases, does not prevent loss of weight, nor am I aware of anyhing that will, except koumiss. Dr. Carrick, in his intersting work on the koumiss treatment of South Russia (page 13), says: 'I have seen a consumptive invalid gain largely weight, while the disease was making rapid progress in er lungs, and the evening temperature rarely fell below 01° Fahr. Until then, I considered that an increase of eight in phthisis pulmonalis was a proof of the arrest of ie malady.' If koumiss possessed this power, mullein early does not; but unfortunately, as real koumiss can be ade from the milk of the mare only, and as it does not bear traveling, the consumptive invalid must go at least to Samara or Southern Russia. In pretubercular and early cases of pulmonary consumption, mullein appears to have a distinct weight-increasing power; and I have observed this in several private cases also. Having no weighings of these latter, however, makes this statement merely an expression of opinion. In early cases, the mullein milk appears to act very much in the same manner as cod-liver oil; and when we consider that it is at once cheap and palatable, it is certainly worth a trial. I will continue the research by careful weighings of early cases; and will further endeavor to ascertain whether the addition of mullein to the cultivating solution prevents the propagation of the phthisical bacillus."—*British Medical Journal.*

Dialyzed Iron.—Dr. Prosser James has lately said, in a summary of the position which dialyzed iron is entitled to hold in medicine, that the persalts of iron are frequently employed solely on account of their astringency, while the protosalts are occasionally considered as being destitute of this quality. The freshly-prepared carbonate is an excellent mild chalybeate, but difficult to keep in an unaltered state, so that preference is given to reduced iron. The scale preparations of iron are held in repute, both from the extreme facility of their use, and their agreeable taste. When these three forms of iron are inadmissible, dialyzed iron may be resorted to with admirable effect. It is a milder chalybeate than the three preceding, and does not produce the slightest irritation.

A recent analysis by Professor Tichborne of Wyeth's preparation agrees almost exactly with Graham's statement, that dialyzed iron contains 98.5 parts of the oxide and 1-5 parts of hydrochloric acid. The liquid thus obtained differs altogether from an ordinary solution of salts of iron, by its not giving rise to the blood-red color on the addition of alkaline sulphocyanide, nor to the blue precipitate with ferrocyanide of potassium. It does not become cloudy on boiling, nor when agitated with two parts of ether and one part of alcohol is the ether layer colored yellow. It is so sensitive that ordinary spring water will cause a precipitate, yet no precipitate is produced by nitric, acetic, or muriatic acid. Graham's solution gelatinized in about twenty days, and he regarded it as a solution of colloid ferric hydrate which, he considered, existed in both a soluble and insoluble form. It is, however, never free from chlorine. Theoretically, therefore, the liquid is a solution of a basic oxychloride, but it can never be imitated by dissolving saturated solutions of the hydrate. All these artificially-made liquors are astringent, with ferruginous taste and acid reaction. Respecting the therapeutic value of dialyzed iron, of which there has lately been some inclination to doubt, Dr. James says there is no question. By the method now followed of counting blood-corpuscles, it is found that the taking of dialyzed iron both increases their number and improves their condition. Dr. James gives, as an average dose, twenty to fifty drops, daily, in three doses. Dr. Weir Mitchell, of Philadelphia, gives as much as a drachm at a time. Specimens have appeared in the market which are not only innocent of any acquaintance with a dialyzing membrane, but seem little else than diluted solution of perchloride of iron.—*Chem. and Drug.*

Extract of Malt.—Malt extract has been very largely used during the last six or eight years. So generally is it prescribed, that, instead of being made by a few manufacturers, now, as was the case a few years ago, scores of houses have commenced making it. The result is that very much of it that is now on the market is worthless. Extract of Malt, to be made properly, requires not only intelligence on the part of those making it, but also skill, and extensive facilities of a costly character. When, on meeting many, who have the supervision of its manufacture, and we learn how little knowledge they have of chemistry or of any scientific principles whatever, we are not at all surprised that so many physicians are complaining that they no longer obtain any results from its use, and are disposed to return again to the use of codliver oil and the hypophosphites. If the products of the first makers had continued to be the only ones employed, we feel sure that the confidence of many of the profession in the efficacy of the extract of malt would have continued, and not been at all shaken; but, it being supposed that the extract was the same by whomsoever it was made, druggists have been permitted to supply to patients any preparation they pleased, and the result has been worthless ones have come so generally into use, attended with no benefit, that not a few are beginning to think that all preparations are inert.

The extract of malt, if properly made, should contain a very considerable amount of *diastase*. If it is destitute of diastase it can not produce the results desired. But to contain diastase it has to be prepared most carefully. Care must be had that the heat does not rise beyond a certain degree, and other conditions must be fulfilled which require not only intelligence and skill, but costly apparatus. The action of diastase is to transform starch into dextrin and sugar, the same as the saliva. Now to ascertain whether or not a particular preparation of extract of malt contains diastase is a very easy process. Any physician can make the experiment in a few minutes—or in half an hour at the farthest. Dissolve some common starch in hot water, as is done in the laundry. Let it be made tolerably thick. While at a temperature of 80 or 90 degrees, stir into a glass of it, containing an ounce or so, a teaspoonful of the extract of malt as taken from a bottle of it. If the preparation of malt made use of contains diastase, in a very short time the solution of starch will become thinned, and on pouring a quantity of it in a test-tube and adding a few drops of a solution of iodine, there will be detected no blue reaction, showing that the starch has been changed into dextrin and sugar. It is known that iodine is a most delicate test of starch— the slightest quantity of the latter striking a blue color with a solution of the former.

This test was recently shown us in the case of *Trammer's Extract of Malt* and that of several others. The action with the Trammer's Extract was most satisfactory—digesting the starch, or changing it into dextrin and sugar, so perfectly that not a trace of blue color was discoverable on adding iodine. The other preparations, however, seemed to have no action on the starch whatever.

We hope physicians will try the experiment themselves, and act accordingly.

Treatment of Dysentery.—Mr. F. Rawle, M. R. C. S., observes that, at the present time, when dysentery is very prevalent, especially among those who have returned from the Egyptian war, any suggestion that may mitigate the suffering of so fatal a malady will be hailed with gratitude. The plan he has used with most success is the following: First, having placed the patient between warm blankets, a pint and a half of warm water, at a temperature of 90° Fahr., is injected. This is seldom retained longer than a few minutes, but is pronounced very grateful to the patient. When the water has soothed the mucous membrane of the colon and rectum, and brought away any *effete* matter, two ounces, by measure, of the following enema is administered with a gum-elastic bottle: ℞ Quinine sulphate, ten grains; compound tincture of camphor, four drachms; decoctum amyli to two ounces. Mix, and when about milk-warm, inject, which is generally retained; but, if ejected, it may be repeated after an hour or two. This has been found of great service, and very grateful to the patient. The effect is like magic. If griping pains be felt over the region of the epigastrium, half-drachm doses of chlorodyne, in some aromatic water, mint, caraway, or anise-seed should be given. The diet, of course, should be of the most soothing kind: jellies, isinglass, linseed, toast and barley *ad libitum*. Ipecacuhana appears of little service, and Mr. Rawle has discarded it from his treatment. Warm turpentine stupes on warm flannels, over the hypogastrium, prove very beneficial.—*British Medical Journal.*

EXTIRPATION OF THE UTERUS FOR PROLAPSE.—Dr. Duvelius (*Centralb. f. Gynakol*) reports the case of a woman operated upon by Dr. A Martin, in Berlin. She was forty-six years of age, and had first menstruated at the age of seventeen. At twenty-two years of age she gave birth to a large child, the labor being normal. Thirteen days after delivery prolapsus began to be noticeable to her, and after a time it became excessive. The cervix was amputated afterward, and anterior kolporrhaphy was performed at one sitting, and posterior kolporrhaphy and perinæorrhaphy at another. The operations were complete failures; the parts projected to an exaggerated degree, and had undergone extensive erosion and ulceration. In this condition she presented herself at Dr. Martin's polyclinic. Another anterior and another posterior kolporrhaphy were determined upon; but, when the patient was anæsthetized, an entirely retroflexed uterus was found to be so completely surrounded by the remains of a perimetric inflammation that total extirpation alone seemed practicable. After disinfection of the field of operation, incision was made around the remnant of the *portio vaginalis*, which was followed by free hemorrhage.

The uterus was then drawn well downward, and an elastic ligature was placed around it. Douglas' pouch was next opened, as the uterus was detached at that aspect with scissors, knife, and fingers. In a similar manner the separation was made anteriorly. The uterus being now dragged forcibly downward, three ligatures were passed upon either side to secure the vessels, after which they were cut away. The stumps of the ligaments were brought down through the wound, and a series of both and superficial sutures was passed, securing the cut edges of the peritoneum and of the vagina. The operation was followed by peritonitis, but the patient evidently recovered. Anterior and posterior kolporrhaphy were subsequently performed, and the patient was believed to be entirely cured.—*N. Y. Med. Journal.*

CRYING OF A FOETUS IN UTERO.—Dr. A. Harlow, of Detroit, Michigan, whose reputation for veracity is endorsed by the Michigan *Medical News*, reports an obstetrical case of his, in which the child cried distinctly and repeatedly for some two or three hours, at least, before delivery. The first scream heard by the doctor was immediately after the rupture of the membranes and while the head was still in the superior strait, it being a vertex presentation of the sixth variety according to Bandeloque. The crying was repeated after each pain and could be distinctly heard in any part of the room. On the next day the patient was comfortable and apparently doing well. She then informed the doctor "that the child commenced crying four weeks before it was born and kept it up at intervals until its birth, since which time it had not cried at all."

CANCER OF THE TESTICLE FOLLOWING ORCHITIS.—At the recent meeting of the Rhode Island Medical Society, Dr. Fuller narrated a case of carcinoma following orchitis. The patient, aged thirty-four, had chronic orchitis for twenty-two years caused by a blow on the testis when a lad of twelve years. Four months before removal the tumor became painful and rapidly increased in size, adding one-third to its bulk in four months.

Excellent recovery from the operation, and immediate recurrence in the abdominal cavity, forming a tumor the size of a man's head, and causing death in two months.

The upper two-thirds of the tumor was fibrous, and contained cysts and enchondromatous masses. The lower third was encephaloid. The abdominal tumor was also encephaloid.

CURE OF GOITER BY FLUORIC ACID.—Dr. Edward Woakes gives, in the *Lancet*, a detailed account of a number of cases of goiter cured by fluoric acid internally. He begins treatment with fifteen minims of a one-half per cent. dilution of the acid three times a day, and, if necessary, increases the dose to twenty, thirty, forty, or even seventy minims, and extends the time to several months. His results are quite remarkable, even in cases that had resisted iodine, bromine, iron, etc. In a few it was conjoined with injections of tinct. iodine. Very few failed to be reasonably benefited, and in eighty-five per cent. the cure was decided.—*Louisville Med. News.*

Diagnosis of Uterine Disease by the Laryngoscope.—Dr. Seiler was consulted by a young girl with general relaxation of the mucous membrane of the throat, which he concluded to be due to uterine disease, for which he advised her to put herself under the treatment of her family physician, as local treatment of the throat would be of no use to her. Her reply was: "Doctor, if I had known that you could see all the way down I would not have come to you." —*Maryland Med. Jour.*

Book Notices.

A Manual of Chemical Analysis, as Applied to the Examination of Medicinal Chemicals. A Guide for the Determination of their Identity and Quality, and for the Detection of Impurities and Adulterations. For the use of Pharmacists, Physicians, Druggists, Manufacturing Chemists and Pharmaceutical and Medical Students. Third edition; thoroughly revised and greatly enlarged. By Frederick Hoffmann, A. M., Ph. D., Public Analyst to the State of New York, etc., and Frederick B. Power, Ph. D., Professor in the Philadelphia College of Pharmacy. 8vo.; pp. 624. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: R. Clarke & Co. Price, $4.25. 1883.

This work, which was first published in 1873, has now reached its third edition, which fact is pretty conclusive evidence that it "has supplied a want," and, consequently, possesses very considerable merit. That it has merit, even a slight examination shows, and we are not at all surprised at the popularity with which it has met.

It is divided into two parts. Part First is devoted to prelimary matters. In this part are described the operations involved in the application of simple tests and chemical examinations, which the skilled pharmacist and druggist are supposed to understand, but with which the student is not supposed to be familiar. The descriptions of these operations are interesting, and of the utmost value to the learner. So clear are they that the intelligent and attentive student will find no difficulty in mastering them by his own efforts, should he not be so fortunate as to have an instructor. Under this heading are described solutions, precipitation, filtration and decantation, washing precipitates, etc. Numerous cuts of apparatus are also exhibited. From operations it is passed on to the consideration of reagents, and then to reagents and test solutions, and then on to course of qualitative analysis, etc. It is quite impossible, in the limits of a simple notice of the work, to mention all the subjects treated of in this First Part.

In Part Second, which occupies much the largest portion of the work, are described medicinal chemicals and their preparations. While the First Part of the work has been much enlarged in this edition of the work, all the articles of the Second Part have been carefully revised, many of them rewritten, and not a few new ones added. It has been the effort to make everything comply with the present compass of chemical knowledge, as also with the recently new editions of the Pharmacopeias of the United States and of the German Empire.

While describing medicinal chemicals in Part Second, their various preparations are also considered, and their physical and chemical characteristics. The student will find full directions for the examination of the quality of medicinal chemicals and their purity, which is certainly most important knowledge for the pharmacist and druggist and physician. He is also taught how to quantitatively estimate them.

We very heartily recommend the work, as now revised and rewritten, and predict for it greatly increased popularity.

THE UNTOWARD EFFECTS OF DRUGS. A Pharmacological and Clinical Manual. By Dr. L. Lewin, Docent of Materia Medica in the University of Berlin. Second edition; revised and enlarged. Translated by J. J. Mulheron, M. D., Professor of Principles of Materia Medica and Therapeutics in the Michigan College of Medicine, Detroit, Michigan. The only English translation having the author's indorsement. 8vo.; pp. 216. Detroit: Geo. S. Davis.

We understand that this work has received the universal commendation of the medical press of Germany, and has taken a high place among medical publications. It undoubtedly deserves all the praise it has received, the author being one of the leading physicians of his country.

To quote from the introduction: "From the fundamental view, first enunciated by Virchow, it follows that a whole series of remedies may, in addition to their curative effects, give rise to symptoms, either by direct or through reflex action upon similar or dissimilar groups of cells, which should not have been occasioned in securing the therapeutic effects of the remedy." In the case of opium, for instance, in addition to the hypnotic effects there is attendant that of constipation. With tartar emetic, beside the vomiting produced, there is the direct effect on the cardiac tissue, and reduction in the force of the heart's action.

But, in a brief notice, it is impossible to give anything like a correct notion of the richness of the contents of the work. It is worthy the careful study of every practitioner of medicine, in consequence of the vast fund of knowledge contained in it. No physician will be able to lay the book down without having received from it the richest information, and without having incited in him an impulse to further observation.

The translation has received the approval of the author.

The book, we learn from its advertisements, will be sent, postage prepaid, on receipt of price, by the publisher, George S. Davis, P. O. Box 470, Detroit, Michigan.

HUMBOLDT LIBRARY OF POPULAR SCIENCE LITERATURE. Six Lectures on Light. By Prof. John Tyndall, F. R. S.

These six lectures on Light by Prof. Tyndall form the thirty-sixth number of the Humboldt Library, published by J. Fitzgerald & Co., 30 Lafayette Place, New York. The other thirty-five numbers are by such authors as Huxley, Prof. Helmholz, Herbert Spencer, Rev. Kingsley, R. A. Proctor, etc., and are on such subjects as Hereditary Traits, Longevity, Origin of Species, Lessons in Electricity, Oriental Religions, Man's Place in Nature, etc. The first twenty-four numbers have been bound in one volume, making a book of 750 pages, and is sent, post-paid, for $4.00. The series is published monthly, at $1.50 a year.

The number before us on Light, by Prof. Tyndall, has fifty pages, in pamphlet form—each page double column, set up in very clear nonpareil type. There are numerous cuts in the way of illustration. The price is only fifteen cents for it alone, as much reading matter being afforded as would ordinarily be charged two dollars for, if in ordinary binding and there was the usual amount of reading on the page. All lovers of science should subscribe for the library, procuring the back numbers.

Editorial.

VOLTAIRE ON THE TESTICLES.—Every one who has ever heard of Voltaire knows that he was a man of very considerable learning. He evidently had read immensely, and had treasured up an immense store of information in every department of knowledge. In his religious belief he was so far from being orthodox in his views as to be ranked among the infidels. His infidelity was probably largely the result of the general corruption of the clergy in France. A man possessed of such powers of mind as he, should have been able to have looked beyond the church about him, with its clergy corrupt and loaded down with vices, in judging the truth of the Christian religion, and examined the merits of the claims *per se* of Christ himself to divinity. But so it is; we find those endowed with the greatest intellectual powers, possessed with the commonest weaknesses of human nature and committing the most narrow-minded acts.

Like all infidels, Voltaire was fond of aspersing the Christian religion on all occasions; and he seems never to have discussed any subject that he did not allude to it in a disparaging manner. In his *Philosophical Dictionary*, he describes and treats of some hundreds of subjects in alphabetical arrangement, belonging to the various departments of science, literature, biography, history, biology, etc., yet probably there is not a single article in which there is not a fling at the Bible, Jesus Christ, the apostles, or some Christian dogma. We admit that there is a vast amount of information to be obtained oftentimes from his accounts and descriptions of many things, so that his dictionary is worthy careful study.

As a specimen of his treatment of some subjects we will quote some of his remarks under the head of TESTICLE, for although not a physician, Voltaire's knowledge of the branches collateral to medicine was truly wonderful:

"This word is scientific and a little obscure, signifying small witnesses.* Sixtus V, a cordelier, on becoming pope, declared by his letter of the 25th June, 1587, to his nuncio in Spain, that he must unmarry all those who were not possessed of testicles. It seems by this order, which was executed by Philip II., that there were many husbands in Spain deprived of these two organs. But how could a man, who had been a cordelier, be ignorant that the testicles of men are often hidden in the abdomen, and that they are equally, if not more, effective in that situation? We have beheld in France three brothers of the highest rank, one of whom possessed three, the other only two, while the third possessed no appearance of any, and yet was the most vigorous of the three.

"The angelic doctor, who was simply a Jacobin, decides that two testicles are '*de essentia matrimonii,*' of the essence of marriage, [necessary for marriage]. In which opinion he is followed by Ricardus, Scotus, Durandus, and Sylvius.

"If you are not able to obtain a sight of the pleadings of the advocate Sebastian Rouillard, in 1600, in favor of the testicles of his client, concealed in his abdomen, at least consult the dictionary of Bayle, at the article '*Quellence.*' You will there discover, that the wicked wife of the client of Sebastian Rouillard wished to render her marriage void, on the plea that her husband could not exhibit testicles. The defendant replied, that he had perfectly fulfilled his matrimonial duties, and offered the usual proof of a re-performance of them in full assembly. The jilt replied that the trial was too offensive to her modesty, and was moreover superfluous, since the defendant was visibly deprived of testicles, and that messieurs of the assembly were fully aware that testicles are necessary to perfect consummation.

"I am unacquainted with the result of this process, but I suspect her husband lost his cause. What induces me to think so is, that the same parliament of Paris, on the 8th of January, 1665, issued a decree, asserting the necessity of two visible testicles, without which marriage was not to be contracted. Had there been any member in the assembly in the situation described, and reduced to the necessity of being a witness, he might have convinced the assembly that it decided without a due knowledge of circumstances."

Of course, Voltaire would not state that a French parliament had forbidden marriage to a man who had not two visibles testicles unless it was the fact. It is certainly an curious piece of information. To be consistent, the parliament should have enacted that in all cases of proposed marriage, the male candidate should be examined with reference to his anatomical integrity. We regret that he has not mentioned whether or not there was such an enactment.

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*From a diminutive of the Latin word Testis, a witness. Ed. MED. NEWS.

In regard to the existence of veritable Hermaphrodites—that is, human beings possessing in one person both the male and female organs of generation perfectly——Voltaire expresses his doubts. He refers, however, to a work by a distinguished English surgeon, named Cheselden, in which there is a plate entitled, he says, "Members of an Hermaphrodite Negro, of the Age of Twenty-six Years, of both Sexes." He states that they are not absolutely perfect, but they exhibit a strange mixture of the one and the other. Cheselden," he mentions, "frequently attested the truth of this prodigy, which probably is not true, in some of the countries of Africa."

Voltaire completes his remarks on Hermaphrodites as follows:

"How many things belong to the animal, man, in respect to which he must doubt, from his pineal gland to his spleen, the use of which is unknown; and from the principle of his thoughts and sensations to his animal spirits, of which everybody speaks, and which nobody ever saw or ever will see?

"Can nature form veritable hermaphrodites, and can an hermaphrodite be rendered pregnant? I answer, that I know nothing about it, nor the ten-thousandth part of what is within the operation of nature."

THERE IS NOTHING DISCOVERED THAT HAD NOT BEEN DISCOVERED BEFORE.—Such expressions as that of the heading, and "There is nothing new under the sun," are heard almost daily; and when we find, as not unfrequently happens, that something we had been regarding of recent origin, dates back in origin very many years, we seem to meet with a confirmation of the correctness of the expressions. Recently, in our readings, we learned that the cant expression, "too thin," which has been said to be an Americanism—having originated in this country—is to be met with in Shakespeare. We were informed, at the time, of the passage in which it occurs, but can not now call it to mind. There have been not a few cant expressions, which our English cousins across the waters have endeavored to asperse us with originating, which have afterward been found in works of old English writers, who wrote before the discovery of this country.

But to proceed with our purpose. We have been asked who originated the very common proverb: *Mens sana in corpore sano*—a sound mind in a sound body. We have not been able to definitely reply, although we have probably met with the words many times, until recently, when in our readings we happened to stumble upon them in JUVENAL. But, still, we can not say that even Juvenal originated it—the expression. He may only have been using the words of some one else. We do not believe, however, that there are any writings extant older than his in which the words are to be found. He wrote during the first century after Christ.

The reader, by turning to Juvenal's Tenth Satire, beginning at the 354th line, will find the following:

> "Ut tamen et poscas aliquid, vovensque sacellis
> Exta, et candiduli divina tomacula porci:
> Orandum est, *ut sit mens sana in corpore sano.*
> Fortem posce animum, mortis terrore carentem,
> Qui spatium vitæ extremum inter munera ponat
> Naturæ, qui ferre queat quoscumque labores,
> Nesciat irasci, cupiat nihil, et potiores."

A CASE OF ADIPOCERE.—There is on exhibition in this city, at the present writing, the body of a woman who died in 1859, near Dupont, Indiana; and after remaining in the grave until last November, for a period of *twenty-three years*, her grave was opened that her remains might be reinterred in the Wesleyan Cemetery near Cincinnati. She was the mother of a Mr. Robert Leitch, of the printing works, 12 West Eighth Street, Cincinnati. When the coffin was reached, in the process of disinterring, although made of common poplar, not a durable wood, it was found in almost perfect condition—the wood seeming to be firm and solid. When lifted from the grave the immense weight was remarked. On reaching the depot in this city, it required six men to lift it from the car to a wagon. A glimpse at the interior showed the cause of the great weight. The body was found to present a normal form and shape; and, although black, the outline was almost perfect. There was the head, with its sunken eyes, withered nose and chin—hair along the edge of the forehead. The body flattened, and somewhat spreading; the upper part of arms lying alongside of the body, and the lower portion of them with the hands placed across the body. The arms and hands, as they lie across the body, indent it. Only the bones of the fingers are remaining. The abdomen is considerably flattened, the sides bulging considerably. The mammary glands of the breast are easily outlined, The thighs and legs preserve their contour, but seem enlarged.

The blackened appearance is caused by the burial garments adhering closely to it, their fibres being easily distinguished.

The present weight of the body, we understand, is about 500 pounds. The deceased, when living, weighed about 200, and was seventy-three years old. In places where the surface had scaled, the interior substance looked like moist plaster of Paris. We had no opportunity of examining other than by sight. We have learned that the material produces a greasy, waxy, granular feeling.

We do not pretend to give anything like a scientific description of this exceedingly curious and interesting phenomenon, as we had no opportunity of making any examination. If we can secure a better description of it at a future time we will do so.

TUBERCLE BACILLUS AND PHTHISIS.—Dr. T. Henry Green (Physician to Charing Cross Hospital, and Senior Assistant-Physician to the Hospital for Consumption and the Diseases of the Chest, Brompton), in concluding a lecture on the relation of this micro-organism to phthisis, observes, with regard to treatment: "What is the practical teaching of Koch's discovery with reference to the prevention and cure of phthisis? If our pathological conclusions be even only partially true, they clearly indicate, I think, the necessity of carefully distinguishing between the bacillus and the conditions which favor its influence, and of directing our treatment to both. We must endeavor to prevent the access of the organism, and, if possible, to destroy it after it has effected an entrance; and we must also strive to maintain a healthy condition of the pulmonary tissues, and thus prevent the occurrence of that tendency to apical stagnation which appears to be such an important, if not essential, factor in the disease. The latter of these indications is, I believe, as important as the former; and it is, perhaps, rather in danger of being lost sight of in the very natural eagerness with which attention is now being directed towards the bacillus.

"Firstly, then, with regard to the condition of the lung which favors the influence of the bacillus. Here it is only necessary to remark that, whatever promotes a vigorous state of health will, by improving the condition of the blood, the nutrition of the vessels, and activity of the circulation, and the exercise of the respiratory function, tend to prevent that stagnation and transudation in the highest portions of the lungs, the etiological importance of which we have so especially insisted upon. The value of treatment which has for its object the fulfillment of these indications in the prevention of phthisis it is, I believe, difficult to overestimate; and its usefulness is almost equally valuable when the disease is established. I can not but think that, in the meantime, such treatment promises better results than any attempts to attack the specific organisms. Secondly: the tubercle bacillus. The consideration of this naturally divides itself under two heads: (*a*) the prevention of its access, and (*b*) attempts to destroy it when the disease is developed. (*a*) The prevention of the access of the bacillus. The present position of our knowledge appears to point to the desirability of adopting measures for the disinfection and destruction of the sputa of patients suffering from phthisis; and perhaps, also, of the alvine secretions, when there is any evidence of tuberculous disease of the bowel. It also raises the question as to how far it is desirable to allow individuals who are not consumptive, but who inherit a phthisical tendency, and especially when such individuals are out of health, to intimately associate with those who are suffering from the disease. If our pathology continues to move on the same lines, this subject may become one requiring the consideration of those who manage our hospitals. (*a*) The destruction of the bacillus after the disease is established. Attempts to do this are made principally by means of antiseptic inhalations. This is the fashionable, though perhaps somewhat misdirected, therapeutics of the day. A respirator charged with some antiseptic, such as creosote or carbolic acid, is now being largely used in the treatment of phthisis. Although I should be very sorry to unfairly criticise such treatment, I can not but think that the evidence that its usefulfulness is in any way dependent upon its destruction of the bacilli, or of any infective substance which they may originate, is wanting. It seems to me much more probable that such inhalations, when beneficial, are so mainly through the favorable influence which they exercise upon the mucous membrane and secretion; and when, as is so often the case, they are combined with chloroform, they will also act as direct sedatives. What we want are cases of early and progressive phthisis in which antiseptic treatment alone, without adjuncts, is followed by marked improvement. When it can be shown *e. g.*, that the pyrexia of early phthisis is reduced by such treatment, we shall have evidence pointing to the influence of the germicides upon the bacillus of considerable value. We are now making some observations in this direction, but, at present, with negative results. Whilst, therefore, I do not wish to be understood to discourage the treatment of phthisis by antiseptic inhalations, I think we must be careful as to the interpretation we put on their results. The treatment of phthisis and of other pulmonary diseases by means of medicated atmosphere has been greatly stimulated by Koch's discovery. Such treatment has undoubtedly been too much neglected in the past, and its prosecution promises the best results. But, in the meantime, I think we have no evidence that we are able by such means to influence the tubercle bacillus; although if Koch's investigations be true, the discovery of some agent which, by destroying it, will arrest its injurious influence; is obviously the greatest desideratum."—*British Medical Journal.*

TUBERCLE-BACILLI IN URINE.—In the last number (No. 5, Feb. 3) of the *Centralblatt f. d. Medicin Wissens*, Professor Rosenstein announces that he has been able to demonstrate the bacilli of tuberculosis in the urine of a patient with urogenital tuberculosis. Lichteim previously mentioned having found these organisms in the pelvis of the kidney of a patient dead from the same disease. The case reported by Rosenstein is one of a man aged 37, with a good family history. Up to four years ago he was quite healthy. Then for the first time he complained of pain during, as well as previous to micturition. Two years ago he noticed, first in the right, later in the left epidydimis, a hardness which appeared to be about the size of a small walnut. The testicles were quite free; no swelling of any lymph glands, nor was there present any sign of disease of the lungs. His general condition was good, no fever was present at any time. The patient passed urine in small quantities, about 50 grammes (1½ oz.) at a time. The total quantity in 24 hours varied between 800 and 1660 Cctm. (25 to 52 oz.), sp. gr. 1012 to 1018. Urine was of a pale yellow, acid, highly albuminous, cloudy even when just passed. Whitish flocculi about the size of the head of a pin floated in it. After standing, an abundant sediment of a whitish-grey color was deposited, composed almost exclusively of pus corpuscles and but very little blood. For examination, the urine was passed into a solution of thymol, and the fluid drawn off after standing 24 hours. A drop of the sediment was placed on a cover glass, dried in the gas flame, and treated according to Ehrlich's method. Observations made with Hartnack 3 obj. 9 showed that in the smallest particles described as flocculi, bacilli were present in great numbers. Prof. Rosenstein further remarks that the urine preparations require 24 hours immersion in the staining solution, in this respect differing from those of sputa, which can be well seen after only half an hour immersion. He also considers it important that the urine preparations after decolorizing with nitric acid should be stained with a watery solution of methylene blue because, notwithstanding the urine may have been passed into a solution of thymol, the bacteria of decomposition might be present, in which case their blue color would readily distinguish them from tubercle-bacilli.—Geo. Wilkins, M. D.

Limiting the Power to Confer Medical Degrees in Massachusetts.—A Massachusetts Judge recently decided that the Bellevue Medical College of Massachusetts was legally incorporated, and could legally confer degrees in medicine, even upon persons who had not studied medicine the proper length of time. Thereupon several new institutions started up, and the business of diploma-making in Massachusetts on the Buchanan plan seemed to be in a most prosperous condition. The legal profession has, however, stepped in, and on February 24th the Attorney-General of the State rendered an opinion, in which he held that institutions of learning or science created under the general law do not possess the power of conferring degrees.

This takes away the powers of the medical diploma mills, theoretically. It remains to be seen whether they will actually be stopped in their operations.

In this connection we would refer to the fact that somebody calling himself a "student" has asked the Kansas City (Mo.) *Times*: "Is there any State in the Union where I can practice medicine without a diploma? I have attended one course of lectures." To which the *Times* replied: "Yes—in Massachusetts."—*Record.*

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.—The Board of Trustees appointed by the American Medical Association to decide upon the plan of a weekly medical journal has issued a circular requesting medical periodicals to inform the profession that sufficient encouragement has been received from different quarters to warrant a report to the next meeting of the Association in favor of the establishment of said journal. We think the committee is in error in issuing a circular of this kind, which does not give the figures upon which such conclusions have been based.

As we understand it, this proposition involves very considerable financial responsibility somewhere, with no slight possibility of greater or less deficiency, to be made good, we suppose, by the Association. If this be so, it is right that the members should have the same data as that possessed by journal committees, that each member may exercise his own judgment before voting upon so important a matter. Let the committee give a synopsis of the pledges it has received from the forty thousand copies of the programme it has sent out. Let it state the estimates of the cost of publishing the journal received from four principal cities, etc. To give these figures only at the time of the meeting in June next will not afford the members of the Association a fair opportunity for considering them. Let us have light now.—*Record.*

DR. FORBES' ACQUITTAL.—Such wide publicity has been given to the arrest and indictment of Dr. Wm. S. Forbes, Demonstrator of Anatomy at the Jefferson Medical College, for conspiracy to rob Lebanon Cemetery, in this city, that it is only just that equal publicity should be given to the fact that twelve men, after a full hearing of the evidence, and in the face of a public feeling largely unfavorable to the accused, have unequivocally pronounced him "not guilty."

As every anatomist knows, the present law relating to anatomy is so ineffective, and the demand for subjects so pressing, so imperative, that, while refusing to take bodies from strangers (we would hardly say "buy," as did the learned judge in his charge, in spite of the fact that the law punishes "traffic" in human bodies), yet the medical schools *must* take "unclaimed bodies" from those whom they know, and who regularly bring such to them, without any inquiry as to where they came from, trusting to the integrity and law-abiding character of those who deliver them. As the learned judge said in his charge very properly, "for various reasons secrecy is maintained concerning them."—*Phil. Med. News.*

DISEASE GERMS.—Dr. Belfield says, in an article in the *Medical Record,* that the germ theory supposes that all infectious diseases are caused by the vital activity of parasitic organisms—that in support of this theory there is strong presumptive evidence. The unlimited reproductive power of the virus; the stage of incubation; and the cyclical course and self-limitation of the disease tend to prove it. The stage of incubation is the period during which the inducted organisms are multiplying. In this way the various durations of the incubative stage, characteristic of the different diseases, become intelligible. The unlimited reproductive power of the virus, characteristic of many infectious diseases, can not be attributed to an unorganized poison or even organic ferment, but, on the hypothesis that the morbid agent is parasitic, it is plain enough; for we know that bacteria, micrococci multiply with great rapidity.

WE often hear it asserted, that, while the medical profession of Cincinnati is very respectable, so far as possessing an average number of gentlemen of very respectable acquirements and skill, yet, at the present time, there is not among them a single brilliant man; that there are no such physicians now that can be compared to Drake, R. D. Mussey, Morehouse, Locke, Harrison, Eberle, Lawson, Blackman, etc. In reply to this it can be stated that there are a score or more medical gentlemen, in Cincinnati, who have not the slightest doubt that they are wearing the mantle of brilliancy, as much so as it was ever worn.

ACCORDING TO THE PROGRES MEDICAL (January 20, 1883), Martineau exhibited at a meeting of the Paris Hospitals Society, a preparation of the genitals of a monkey which had been inoculated with syphilis a few weeks previously. The indurated primary lesion was unmistakable; the stage of incubation having lasted twenty-eight days, and that of cicatrization twenty-seven. The adenophy was also well marked. Subsequently mucous patches appeared. Dr. Spitzka, of New York, is said to have in his collection the cranium of a Chinese baboon, which shows indubitable evidences of tertiary syphilis.

THE NON-IDENTITY OF CROUP AND DIPHTHERIA—Dr. McGillvary, of Sydney, N. S., writes to the *Philadelphia Medical News* as follows, in regard to the above subject: In your issue of October 21, there appeared a lecture delivered by Dr. Morrell Mackenzie, of London, at Bellevue Hospital Medical College, on "Diphtheria." In that lecture the learned Doctor pronounced croup and diphtheria one and the same disease. This is an utterance *ex cathedra*, and deserves more than passing notice.

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FOR SALE.—A physician has left with us for sale the latest edition of Gross' Surgery, two volumes, in half Russia, raised bands. Publishers' price, $16.00; will take $10.00. This is the finest work on surgery in the English language. This last edition has been almost entirely rewritten, and brought more fully abreast of the times than any other work on surgery extant.

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Original Contributions.

Etiology.

BY DR. E. P. FOWLER.

We select the following from the address of Dr. Fowler, the President, before the New York Medico Chirurgical Society, of New York, delivered November 14, 1882.—ED.

ANOTHER instance of those subjects which demand renewed energy of investigation is etiology.

To meet inquiry with words in place of reason, it may be sufficient to say that a malady is caused by congestion, or inflammation by anæmia, or hyperæmia, and the like. The cause of bleeding from the nose might be equally explained by saying that it was nasal hemorrhage or epistaxis.

In a great proportion of medical literature, symptoms of disease are given as the cause, and if a demur is made, the reply sometimes is, "Well, if it is not the cause, it is the ultimate fact." Now, a fact which does not explain anything is not an ultimate fact,—if there is such a thing possible as an ultimate fact,—and should never be a satisfying one.

We all agree, doubtless, that disease is an interference in some manner with the natural action, growth, and maturing of an organism. This interference is not generated spontaneously—is not autogenous; it must proceed from something, or from some conditions, outside the body, which have either entered into it or affected it by external contact. If the foreign element has actually penetrated the organism, it may or may not, according to circumstances, be able there to reproduce or multiply itself; but if it does so, it is a generation strictly separate from the ordinary conditions constituting the individuality of the organism invaded.

The study of pathology, therefore, in its ordinary sense, is not the study of the cause of disease; it is the study of the phenomena which lead toward the cause. In the ordinary enumerations of the telluric and celestial causes of disease it is quite possible that a large fraction of the sum has hitherto been omitted.

Ancient writers were superstitious, and in the main poor scientists; nevertheless they were good observers. Many of their valuable observations, however, were set aside, and this only because they were linked with absurd explanations; but their facts are as sturdy and sterling as those of our own day, and the later unfoldings of science are confirming and reinstating even some of their conjectures, which have long been regarded as supreme nonsense.

The old belief that the destiny of man was, in some mysterious way, determined by the powers of the air, the earth, and the celestial bodies, has a foundation which science is daily making broader and clearer.

That atmospheric conditions, storms, light, darkness, the condition of the earthy components, the influence of the bodies in space, and the like, should determine the welfare and the very existence of organic life, is now, of course, fully recognized by every intelligent observer.

But is not the knowledge of those influences which may furnish or destroy the conditions for life, still in its early twilight? Are there not multiplying upon us glimpses of unexplored and unlimited fields? For example, has the atmospheric ocean, at the bottom of which we live, been subjected to anything more than the most superficial examination? Common storms appear quite simple, and any newly-fledged scholar will glibly furnish you with their causes; but among scientists, even for these there is as yet no generally received theory.

Take also, as another instance, the observations in astronomy, by which we are taught that, within each twenty-four hours, there enter our atmosphere as many as eight milllions of meteors, which are visible to the unassisted eye, and that those in addition which the naked eye can not perceive, are probably this number many times over. These little pigmy-like planets—it may be the bits of a broken-up or incomplete planet—are along their courses caught in our atmosphere, and by friction with it are burned up.

To more fully realize the magnitude of this one item of the activities about us, and its possible results as concerns living beings upon the earth's surface, let us call to mind the fact that these meteoric bodies move through space at a speed of from ten to forty miles per second, and then place by the side of this fact the formula with which the generation of heat, by atmospheric pressure, is computed.

You will excuse me if I here repeat the law, with which you are all doubtless familiar, or at least have been, namely: *a body, moving through the atmosphere at the rate of one-hundred and twenty-five feet per second, will raise the temperature of the air immediately in advance of it one degree Fahrenheit, and the temperature increases in proportion to the square of the velocity of the moving mass.*

It therefore remains, of course, but to ascertain the number of feet per second at which a body moves through the atmosphere: divide this sum by one hundred and twenty-five, square the quotient, and your result indicates the degrees of Fahrenheit which would be obtained.

It thus will be found to result that a body, traversing the atmosphere with a velocity of ten miles per second, would produce a temperature immediately in front of it above one hundred and seventy-eight thousand (178,000) degrees Fahrenheit; over six hundred thousand (600,000) degrees by a speed of twenty miles per second; and, at a rate of forty miles per second, the heat produced would considerably exceed two millions and a half degrees Fahrenheit—a heat, the intensity of which transcends all powers of human imagination, as the most intense artificial heat which we at present know how to produce, does not—if I am right—exceed four thousand degrees Fahrenheit.

The appalling rapidity with which these objects plunge towards the earth, and the generation of the incidental intense heat which serves to consume them before the second or two of time in which they could reach us, appear then to serve as a sure protection, and as the *only* one against universal destruction of all life and form upon the earth's surface. The next link in this chain of thought brings a consideration as to what may be the effect of these titanic actions carried on at, or near, the surface of the atmospheric ocean. This region could hardly be else than the theater of storms and convulsions, compared with which any of the so called cyclones at its base, the surface of the earth, would be calms.

The upper air must be more or less filled with the *debris* gases of burnt meteors; and these conditions again must be subject to wide variations, depending upon whether the orbit of the earth is passing near or through a meteoric orbit, etc. It would be a question worthy of observation, also, how far and in what manner the varying state of the sun's surface affects earthly organisms; the same too as regards the moon, comets, and the various other bodies in space. We certainly know that these influences do affect non-vitalized matter, and it would therefore be in the highest degree illogical to deny the probability of any effect upon the constitution of living organisms. We know that there is almost a perfect parallelism between the solar maculæ and the magnetic aurora upon the earth, and that these magnetic disturbances will often cause the compass needle to exhibit a variation of from ten to fifteen degrees within an hour's space of time. The disturbances indicated by the dark spots on the solar surface seem to transmit their effects to the earth with about the same rapidity that light travels.

Still, again, we are taught by the tides that the sun and moon exert upon the matter of the earth a force of most majestic proportions in thus heaping up vast bodies of water, and this force must act proportionately upon every atom of earth's matter, vitalized as well as non-vitalized. In what relation does the rhythmic action that pervades all inanimate nature stand to the disposition of periodicity which all disease, and indeed all physiological processes of life, so clearly exhibit? May it not be that in this direction lies hidden the key to the mystery of annual, mensual, hebdominal, and other more minor periodicities in animal life, and in disease? And is it not possible that all manifestations of vitality consist of a series of rhythmic motion—that is, periodicities?

These are only bits of suggestions relating to the microcosmus—the great Immeasurable which surrounds us; but the microcosmic pendent is equally full of interest and importance.

In this department the germ-study has now enlisted a small army of laborers, and the names of Davaine, Chauveau, Keber, Oertel, Klebs, Obermeier, Ross, Beale, and particularly those of Pasteur, Joubert, and Duclaux, have drawn about them a host of others, and the field promises momentous results. Researches thus far seem to coincide with the logic of Darwin's views, and to turn the balance against the former supposition of spontaneous generation, even of germs; and should the non-spontaneity view prove correct, it is easy to realize how great a step will have been taken towards measures for simplifying the prevention, at least, of those diseases which result from the introduction and multiplication of these germs in the animal economy; for to interrupt a line of descendants may be possible, but if spontaneous generation lies within the problem, the task must be endless and hopeless, for the multiplication of beginnings might outnumber all possible resources. Is it possible that we shall become able to construct effective barriers against the germs of a large area of disease, or must it ever be that there can occur in any living organism a spontaneous generation of new living beings, whose lives demand the destruction of the body in which they generate?

The practical bearing of this matter, in its main, lies plainly before the eyes; but, cropping out from the main question, there are many incidents filled with instructive and curious suggestions.

The marvelous rapidity with which these germs multiply—the self-destruction resulting from this speedy reproduction—the slight causes which serve to accelerate growth and production, as well as to retard or stop the process, these can as well serve to stimulate practical activities as they do to fire the imagination.

Pasteur, Joubert, and Duclaux have ascertained, by experimental observations, that some of the germs which are reproduced by the scission-process require only an average of six minutes for each individual to divide, giving two for one. Calculating upon this basis, it would require scarcely three hours for one individual to exhibit fifteen hundred millions of descendants. The number which would result from twenty-four hours' time could hardly be conveyed by figures—it certainly would be far beyond the power of finite realization. That they do not increase to the exclusion of every living thing on the earth is from the fact that they so quickly exhaust their supply of surrounding nourishment, and die of starvation.

To those who have interest in matter of dosage, there are also some curious facts connected with germ-culture. For the artificial cultivation of the *aspergillus nigre*, M. Raulin has composed a liquid called the "*liquide Raulin.*" In a gallon and a half of water are dissolved two and a half ounces of candied sugar, to which are added a few grains of a mixture of tartaric acid, nitrate and phosphate of ammonia, carbonate of potassa and magnesia, sulphate of ammonia, zinc and iron, and silicate of potassa.

Many experiments have been made, and recorded, respecting the wonderful action produced upon the germs by the introduction of almost infinitesimal quantities of various different substances. Perhaps they are known to you all, and, if so, among others, the one made with the nitrate of silver must have attracted your attention. That the one hundred thousandth of a grain of this salt would destroy, and that almost instantaneously, all the germ life in the gallon and a half of liquid seems wonderful; but still more so the fact that the placing of the liquid in a silver vessel will be followed by the same result, although it is almost impossible for chemistry to demonstrate that the silver has imparted to the solution any of its substance.

CURE AND RECOVERY.

Turning now in another direction, there is a subject towards which it would seem profitable to direct more earnest attention, and the dealing with it intelligently and radically would, perhaps, be in keeping with the general aims of this Society.

The question is one which involves the life and health of every patient, and the reputation of every medical practitioner. I refer to an adoption of some means by which a clear distinction, capable of a reasonable degree of demonstration, can be made between cures and recoveries.

There is probably very little doubt in the mind of any competent observer that a large number of recoveries are improperly claimed as cures, and although in such cases we may undeservedly gain a little temporary gratitude and praise, this is, nevertheless, greatly outweighed by reproach and mortification meted out and experienced in that great number of cases where chance does not play in our favor; more than this, a self-deception in this matter is a trap which ensnares our own judgment and induces us to trust life to suppositious resources which have no real proven value or existence.

One of the earliest lessons in science is to be deliberate and particular in receiving testimony; and so apparent or alleged results from drug administration should be accepted with the utmost caution; the application is too closely allied to human life and happiness to justify the acceptance of testimony in this connection which is not substantiated by every possible test.

As in mathematics, the process for solution, if true, should work with equal accuracy both ways.

That at this point there exist obstacles beyond those encountered in abstract mathematics, is certainly true, but the residuum of the solution need not be, as it often is at present, much in excess of the product solved. Were the problem not of complex elements, it would be fair to say that if a given disease or process is corrected or abridged by drugs, it would, without drugs, either always continue to exist, or be, to a certain extent, palpably prolonged.

In ascertaining just what is due to drugs and what is not, by the giving or withholding of them—that is, with the knowledge of the patient— can never be a fair mode of deciding with the human being as a subject; for, in human kind, there is a factor in the treatment of disordered processes which, perhaps, is quite as important as the scope of drugs; this is the physical result produced upon the body by the mental conditions excited in the patient.

A patient who, by taking remedies, is stimulated with the belief that he will thereby recover, is much more likely to do so than one depressed by the feeling that nothing is being done for him, and that his fate is to die unless nature should happen, in some accidental way, to rescue him.

Therefore, in experimenting upon the result of drugs or no drugs, in order to free the test from this mental factor, the individuals submitted to the experiments should, both sets, of course, be equally under the supposition that they are taking real drugs. A necessary preliminary step for the completeness of this investigation, however, would be to obtain a full, general history of disorders as presented with no interruption to their natural course. This descriptive history has been largely added to within the last ten or fifteen years; but, on the other hand, we are very far from possessing a close knowledge of the actual extent of drug-action, excepting, perhaps, some of the grosser forms of toxicoses.

It is no uncommon thing—indeed it is of very frequent occurrence—to chance upon clinical descriptions where the natural course of a disorder and the supposed drug-action are hopelessly confounded. How many remedies have been vaunted for suddenly arresting pneumonia at about the fifth or seventh day of its course, enteric fever at its seventeenth or twenty-first day, of effecting a crisis in variola at about the eleventh day, and so on indefinitely.

The extent to which drugs act as curatives, and the conditions to which their employment is adapted, furnish a subject worthy of a serious attention which it has not yet received.

Translations from Our Foreign Exchanges.

Translated for Medical News by Dr. Illowy, Cincinnati, Ohio.

THE FRONTIERS OF FOLLY

A Lecture delivered by Prof. Ball, in the School of Medicine, Paris.—*Tribune Medicale*

(*Continued from last Number.*)

We will now pass to another class of observations.

The *mystics* occupy a very large portion of the domain of mental alienation. It is not my intention to insist here upon all the forms of insanity that religious sentiment has been able to engender. It is not my purpose to trace the histories of all the monstrous or ridiculous sects that fanaticism has brought forth; I merely desire you to observe how persons, imbued with these strange beliefs, are often, in business matters, most prosaic and very sensible; are able to acquire wealth, which without doubt is the best proof of good sense. That which is most remarkable is that ideas of this *genre* may remain latent, laid bare only by accident.

Allow me to cite you an example. Some years ago there died at Neuchatel an old notary who had acquired, and very legitimately, a reputation for probity and correctness; moreover, he was very pious and, notwithstanding certain eccentricities, was always considered a perfectly rational person. He died four years before his wife, and after her demise the heirs found a sealed packet, which, according to the superscription it bore, was not to be opened until after the death of both husband and wife; the seals were broken and the following document discovered:

"Contract of partnership between the Almighty God, the eternal, all powerful and all wise of the one part, and me the undersigned, Isaac Vuagneux, notary, his very humble servant and zealous adorer of the other part, the following contract of partnership has been made:

"Article 1. This partnership is formed for the purpose of trading and speculating in liquors.

"Art. 2. My very respectable and magnanimous associate will deign, as his contribution to the capital, to give his blessing to this enterprise in such measure as shall seem compatible with his paternal views and the accomplishment of the immutable decrees of his eternal wisdom.

"ART. 3. I the undersigned, Isaac Vuagneux, plege myself for my part to contribute to the aforementioned partnership all the necessary capital; to transact all the business, as the leasing of cellars, sales and purchases, attending to correspondence and keeping of accounts; in one word, to devote my time, my labor, my physical and moral means, to the benefit and advantage of the partnership, all in conscience and good faith.

"ART. 4. The books kept by single book-keeping will show all the transactions; and the sums carried to debit and credit of account will be credited with the *pro ratas* of interest calculated to December 31st of each year, at which period the accounts will be regulated.

"ART. 5. The net profits will be divided equally between my noble and powerful associate and myself."

We will omit the other articles of this singular contract. In short, he finished by crediting the poor with the sum of 7323 Francs 55, which was scrupulously remitted to the poor of Neuchatel.

Doctor Chatelain (of Prefargier), to whom we are indebted for this curious history, thinks that the honorable notary was of sound mind, but that he expressed his piety in a manner somewhat original. We, on the contrary, are of the opinion, that Mr. Vuagneux was, to say the least, on the frontiers of folly, and that we have here one of those latent alienations that hide themselves, as it were, in the profoundest depths of the individual, and only rarely come to the surface.

By the side of mystics we can place the *possessed ones.* These are persons in whom the same word, the same formula, the same idea, presents itself automatically at every instant. We can not imagine to what insensate actions this tyranny of intellectual impulses may lead to.

A young man pursuing his studies, having heard, one day, certain of his friends joking upon the pretended fatality of the number *thirteen,* became possessed so that he was obliged to repeat at every instant a sort of mental orison. God thirteen! Eternity thirteen! The Infinite thirteen! He was finally compelled to abandon his studies and to retire to the country.

A man, otherwise perfectly sane and in good health, is compelled to renounce reading; for as soon as he turned a page he believed he had skipped one and had to begin anew, without being able to advance another; can not enter a room without counting all the objects therein, from the books spread upon the table to the buttons of his interlocutor.

This mental tendency borders upon the *folly of doubt*, of which sometime ago I showed you a very remarkable example. It was the case of a young man, employed in a banking house, leading a regular life and fulfilling all his duties very exactly, and who, since eight years, doubted his own existence and the reality of exterior objects. Tormented by this painful disposition of mind, he came to me, asking to be entered in an asylum; he was thus fully aware of his condition and nevertheless may we not say that he was on the frontiers of folly?

Next, after this class of patients, comes the *genre* of *Vertiginous*. Under this denomination may be comprised, perhaps, improperly, but easily comprehended, the cases of *Agoraphobia*, of *Claustrophobia* and of *Topophobia* which are met with in persons otherwise sane.

A rather curious example of an analogous condition, of mind has just been published by Dr. Cabade. The man, otherwise very intelligent, very experienced in affairs and very spiritual in conversation, found it impossible to accomplish certain usual acts of life. To cross the threshold of a room he had to be pushed over it from behind; in order to get up from the chair upon which he was seated, he had to be pulled up by the arm. To get beyond an imaginary obstacle in the street, he had to make several attempts. Nevertheless, in the midst of greatest hesitation, if he thought himself observed, he displayed great skill in concealing this from the spectators. If he was obliged, for example, to redescend the moment he attempted to get into a carriage, he feigned to have dropped something, or to have perceived some fault in the equipage.

It is now two years when this patient was obliged to do his military service of twenty-eight days. He begged his physician to have him exempted. The latter begged two of his colleagues who were charged with this portion of the service to breakfast with him in company with the patient. During all the repast, Mr. X. was so amiable and spiritual, that, after his departure, the two physicians asked their colleague if it was his intention to mystify them. For reply he led them to a window of his office which opened upon the boulevard where Mr. X. had to pass, and there they saw him a prey to an incredible agitation, not being able to pass a tree, a stone, the shadow of a house, without making several attempts. He had to retrace his steps, then go forward to pass an obstacle, and then begin anew.

This class of patients are very nearly related to the innumerable and insupportable tribe of *hypochrondiacs*. Pushed beyond certain limits, hypochrondia becomes mental alienation. All physicians have seen developed in persons, perfectly sane, conceptions absolutely delirious upon the subject of their health. We will cite you a striking example. A lady presents herself to a well-known specialist, and says: "Doctor, I come to consult you for a malady of the prostate." "But, madam," cries the very much astonished doctor; "you have no prostate!" "What, doctor!" responds the lady, indignantly; "I have no prostate? I have just read a medical work upon the maladies of the prostate, and I have all the symptoms of the disease!"

Gentlemen, I must abridge my lecture. It was my intention to speak to you of *the eccentric*, of *the irritable*, of *the senile*, of *the sexual*,* of *inventors*, and of many other categories of semi-alienated, but I must pass them over in silence, and call your attention to those *subject to hallucinations*.

Gentlemen, it is with good reason that my friend, Dr. Lugs, has, in the classification of the insane, formed a distinct class of the *hallucinated*.† Without doubt, in the majority of cases, the hallucinations are only a symptom of the mental malady that dominates the situation; but it happens sometimes, it happens frequently, that these sensorial troubles become the cardinal point of the insanity, the real source of the delirious conceptions. The patient thus becomes mad because he was subject to hallucination.

In this respect they must be divided into two classes of subjects. These conserve the necessary equilibrium to judge correctly their hallucinations; the others are entirely under their influence. The first are on the frontiers of folly; the second have passed beyond the lines.

It is among the first class—those conscious of their hallucinations—that the young man, whom I intend to present to you to-day, must be placed. He is a most intelligent chemist, who has occupied himself with the solution of an industrial problem of the greatest importance: he desired to establish a new process of gilding. From inspiring the emanations produced by his chemical manipulations, his health became affected. He began by hearing a voice which said to him: "Go away from here!" He next experienced twitching, pricking and stinging sensations in different parts of his body; lastly, he inhales continually the odor of cyanhydric acid. It is for the purpose of getting rid of these hallucinations, of whose illusory character he is well aware, but which are with good reason a cause of anxiety to him, that he demands to be placed in an asylum. He is conscious of his hallucination, but he is, nevertheless, on the frontiers of folly; for it often happens that a patient, after having a long time resisted his hallucinations, ends in believing them true and becomes insane.

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* Constantly tormented by sexual desires.

† Those possessed by hallucinations. One word, formed after the French *hallucine*.

There is, however, a large number of individuals who are tormented by hallucinations during a long period of their existence, without ever believing in their reality. That was the case of the patient described by Winter, who experienced an unctuous sensation over the whole surface of his body. It seemed to him that he was steeped in oil. That was the condition, more particularly, of the famous Lelorgne, of Savighy, who, pursued by hallucinations of very painful aspect, and of which he has left us a very detailed description, ended by secluding himself in complete obscurity, the only means of escaping this painful obsession.

You will bear in mind that hallucinations, even when the persons are fully conscious thereof, can have a direct influence upon his actions. My friend, Dr. Mesuet, has shown me a drinker (alcoholique), a very intelligent person, who had the most bizarre hallucinations of hearing, whose character, however, he perfectly appreciated. He arose in the morning, full of good resolutions, and left to go to his work. Unfortunately, to get to his workshop, he had to pass a certain drinking saloon, with whose geographical position he was only too well acquainted. As he approached he heard two voices, that of the good and that of the bad angel. The first said: "He will not enter;" the other said: "He will enter, he will enter." As he came nearer the voice of the bad angel became more and more preponderant. He entered, and as soon as he had drank, the hallucination disappeared as if by magic. Walking along the quay one day, the voice commanded him to throw two five-franc pieces, which he had with him, into the Seine. He obeyed instantly, and scarcely had he done so, when he wanted to throw himself after it; "for," said he, "we did not have, at that time, twenty francs in the house."

Thus, in this drunkard, hallucinations appreciated at their just value, nevertheless led their victim to commit insensate acts.

Gentlemen, I believe I have demonstrated to you sufficiently the proposition formulated at the outset of this lecture. We are surrounded by people who occupy positions in society, more or less elevated, who pursue their occupations, who fulfill apparently all their duties, whose reason, nevertheless, has certain weak points, conceptions truly delirious, without it being possible to shut them up in an asylum, for they can not be categorically classed with the insane.

It must certainly be somewhat disquieting to think that the engineer who runs the train on which we are riding may be the *subject of hallucinations;* that the lawyer whom we consult may be possessed by the *folly of doubt;* and that the notary, who draws our contracts and agreements, has perhaps drawn up articles of copartnership between himself and the Creator of the universe. But we must do our best in these matters.

Not only do these semi-alienated often reach high positions, but they exert an incontestable influence on their immediate circle, on their country, on the age in which they live. The hallucinations of Joan of Arc worked a miracle which the best captains of the age could not accomplish; and among the celebrated men, who have shaken their epochs from dome to foundation, there are several, who, if not absolutely insane, were certainly semi-alienated. It is because, in fact, these spirits, placed on the extreme limits of reason and folly, are frequently more intelligent than others; they are, above all, of a devouring activity just because they are *agitated.* Lastly, they possess a most powerful originality, for their brain swarms with unpublished ideas. Read history, and you will find it is these, more particularly, who have revolutionized the world, who have founded new religions, created and overthrown empires, saved nations (perhaps to destroy them again), and have left their imprint on the science, on the literature, and on the customs of their country and their age. The progress of civilization would have often been arrested, if there had not been insane ones to push it onward. Let us then render homage to madness, and recognize in it one of the principal agents in furthering the progress of civilized society, and one of the grandest forces governing humanity.

Selections.

The Use of Salicylates in Acute Rheumatism.

THE discussion of the value of salicylates has been very extended in England, by both physicians and journals, for the past few months. The subject has also awakened considerable interest among the profession in this country, and the medical journals have contained many extracts in regard to the discussion in Europe. The following articles are copied chiefly from "*Ephemeris.*"

In *The Lancet* of December 17, 1881, Dr. C. Hilton Fagge, of Guy's Hospital, has a paper on this subject, giving statistics and an analysis of a large number of cases, and concludes his remarks by saying that he was cautious, if not skeptical at first, "But where case after case occurred with scarcely a failure, he became satisfied that he had a most potent remedy in his hands. All further experience had strengthened this conviction in his mind, and he would now feel that he was accepting a grave responsibility if he were to withhold a drug which he believed to be so useful from any patient placed under his care, unless there were some good reason for doing so."

In *The Lancet* of December 24, 1881, p. 1080, is an "Analysis of Statistics illustrating the action of Salicin Compounds in the Treatment of Acute and Subacute Rheumatism," by Dr. Francis Warner, assistant physician to the London Hospital and East London Hospital for Children. Tables are given embracing an experience of four years, and these are summarized as follows: "In 190 cases in which salicylic acid was employed the average duration of pyrexia was 5.5 days. In 79 cases without salicin, the average was 13.8 days.

"In 277 cases in which salicin was used the average duration of pain was 5.3 days.

"In 67 cases without salicin the average was 9.3 days."

In 342 cases with salicin the average confinement to bed was 19.5 days. In 211 cases without, the average was 23.5 days.

In 352 cases, with salicin treatment, the average time in hospital was 34.9 days. In 387 cases without, the average was 36.2 days. From these data it appears that the salicin treatment has a very great advantage in every respect, and that in the duration of fever and pain the advantage is more than double. In cases under salicin treatment, "heart disease developed in 13.6 per cent.; in cases treated otherwise, in 14.9 per cent. Relapses occurred in 33.6 per cent. of the salicin cases," at the average time of 15.2 days, lasting on the average 3.5 days.

On page 1081 of the same journal, an abstract of a paper read by Dr. Isambard Owen is given. This embraces 210 cases of acute and subacute rheumatism occurring in St. George's Hospital in 1877 and 1878. These cases are carefully tabulated in six sections, and from the analysis thus shown the following conclusions may be justly drawn: The treatment by salicylates, whether in large, medium or small doses (3, 2, or 1½ drachms per diem), gave an average duration of fever and pain of 3½, 4, and 4½ days; while for cases treated by full doses of alkalies, with or without quinia, the average duration of fever was 6½ days, and of pain 8 days,—an advantage for the salicylates of nearly 50 per cent. The duration in hospital was practically the same under all varieties of treatment. Relapses occurred in about 30 per cent. of the cases treated by salicylates, and in 27.6 per cent. of those treated by alkalies, with or without quinia, with an average duration of about 5 days for salicylates, and of 2 days for alkalies, thus showing a very considerable advantage for the alkaline treatment in this respect. The average days of illness from the commencement of treatment was for salicylates, 6.3 days, and for the alkalies, 10.3 days. Heart complications were few and the results not significant. Toxic symptoms were seen in a number of cases, all abating when the salicylates were suspended. "No cases of hyperpyrexia occurred, and none ended fatally."

In the same journal, same page, Dr. De Havilland Hall gives statistics based on 54 cases of acute rheumatism treated both with and without salicylate of soda. His conclusions are: "In contrasting the cases—38 in number—treated by the salicylate of soda, it will be noted that their average stay in hospital was less than a day in excess of the average stay of the 16 cases treated without the salicylate, and that in comparing the days of fever and pain the advantage is still more distinctly in favor of the salicylate plan. In comparing the heart complications which occurred 19 times under observation, the proportion between the two sets of cases is practically the same. This speaks highly in favor of the salicylate plan of treatment, when the much more acute nature of cases subjected to this plan of treatment is borne in mind; but it is only what we should expect from the power the salicylate has of reducing the duration of the fever and of the pain."

In *The Lancet* of December 31, 1881, p. 1119, Dr. D. W. C. Hood, of the West London Hospital, gives the analysis of 1,200 cases treated for acute rheumatism. In the course of the article he says: "I must ask you to refer to Dr. Fagge's table"—*The Lancet*, December 17, 1881, p. 1030—"as a basis for comparison, my own salicylate table being simply complementary to his, and I think, as you will see, fully bearing out his statements."

In *The Lancet* of January 7, 1882, p. 9, Dr. Sidney Coupland's "contribution to this subject consists in an analysis of eighty-four cases of acute and subacute rheumatism treated with more or less rigor by salicylate of soda." His conclusions are given in *The Lancet* of January 14, 1882, p. 54. The deduction from his statistics with regard to relapse, is "that the withholding of the drug renders the patient more liable to pyrexial and articular relapses than if its administration be continued; but that the relapse may occur in spite of fairly considerable doses being given, as many occurring under doses of sixty grains and upwards for twenty-four hours, as under smaller doses." . . . "Lastly, before leaving this question of relapses, I should like to recall the fact that they may be promoted by a too early transition from a milk to a solid diet, or by too early getting up from bed. The readiness with which the salicylates subdue the fever and pain is liable to lead to too hasty changes in these respects, and therefore indirectly to relapse. I have no figures to bear this out, but I am certain that I have seen relapses occur under the use of the salicylate which one might fairly attribute to change of diet or abeyance of rest." . . . "Salicylate of soda is certainly *anti-pyretic*, and, to a considerable degree, *anti-rheumatic*. That its employment does not appreciably diminish the time necessary to keep the patient at rest more than under other methods of treatment, but that the immense relief given by its use in the abatement of pain and fever—a relief not to be estimated by statistics—renders it by far the most valuable remedy for the disease at present known."

In the *British Medical Journal* of January 14, 1882, p. 46, Dr. P. W. Latham adds a note explanatory of his previous paper on salicylic acid as a specific in acute rheumatism. He summarizes: "The theory which I hold with regard to the pathology of acute rheumatism resolves itself into the following points: 1. A nervous center exists, which controls the nutrition of the muscular and other tissues, and which has been termed the 'inhibitory chemical center.' 2. The action of cold on some individuals, by lowering the power of this center, modifies the nutrition of the tissues, and leads to the excessive formation of lactic acid and other products. 3. The presence of lactic acid in abnormal amount in the blood produces functional change in the medulla oblongata and the spinal cord (? posterior columns) when brought in contact with them, and develops the local symptoms of acute rheumatism in a manner similar to the production of the symptoms of locomotor ataxy, with its arthropathies, by organic change. 4. If the portion of the medulla in the neighborhood of the origin of the vagus is a point of minimum energy, either hereditary or acquired, then, according to the particular fibres involved, may cardiac, pulmonary, or pleuritic complications be developed during an attack of rheumatism. 5. Salicylic acid combines with the antecedents of lactic acid, and so prevents its formation. 6. If the administration of the remedy be suspended after the symptoms are relieved, and before the 'inhibitory chemical center' has recovered its tone, a relapse will certainly take place. Such a theory explains, moreover, the necessity for giving at the commencement, at least, of the treatment as much of the remedy as the system will bear. I hope before long to be able to prove, more conclusively than I did a year ago, the truth of these propositions, and to indicate more accurately the chemical changes which take place in the nutrition, and disintegration of muscular tissue. The object of my note, however, of December 10, was not to raise a discussion on these points, but to suggest that the effects of the true and the artificial salicylic acids are not identical; and that where the head-symptoms have been alarming, or much gastric or intestinal irritation has been produced, or where the remedy has failed, after the administration of a sufficiently large dose, to give relief, these results were due not to the true acid, but to that artificially prepared, and possibly more or less contaminated with carbolic acid, paraoxy-benzoic acid, or other impurities."

In *The Lancet* of January 28, 1882, p. 134, Dr. R. D. Powell further adds: "The value of salicylic compounds in the treatment of rheumatism is well shown in cases outside the ordinary run of acute rheumatism, in which joint symptoms are absent or insignificant, and the disease manifests itself in other unlooked-for ways." He then gives two of his own cases corroborating this statement, and concludes his article: "These two cases are the most striking examples I have met with, but I have seen a goodly number of cases of other than joint rheumatism in which the salicylates have proved of value when other measures failed."

Lastly, in the same journal, p. 138, Dr. W. H. Broadbent, of St. Mary's Hospital, in summing up the discussion of the whole subject, says that he has not been able to determine exactly the numbers, "because the tabular statements have overlapped in some degree, but certainly more than a thousand cases of rheumatic fever treated by salicylic compounds have been under the consideration of the different speakers who have brought the matter before the Society." . . . And, "If facts can settle a question, then I consider that the value of the salicylic treatment of rheumatic fever may be considered as settled. . . . I think we may say definitely that by means of salicylic compounds the duration of the pain and fever in rheumatism is unmistakably lessened; and, even if the stay in hospital is not materially shortened, certainly the suffering is very greatly diminished. With regard to relapses, perhaps we may say that they seem to be more common under the new than under the old methods of treatment; still I am quite sure that the explanation of this is to be found in the rapidity with which all the acute symptoms subside under the administration of salicylates. . . . Over and over again I have gone to the bedside of a patient who has just come out of acute rheumatism, and have found a stream of air pouring down upon the bed, in consequence of the zeal of sisters and nurses for ventilation; and to this fact I am quite certain that many relapses are due. . . . I am not aware that there have been brought forward any illustrations of bad effects which at all neutralize the good results that we have seen. . . . Turning now to another part of the subject, I myself do not—in spite of those most interesting, and of course accurate, tables which have been brought before us by Dr. Gilbart Smith—believe that the salicylates increase the frequency of heart disease; on the contrary, I quite coïncide with the hope and anticipation expressed by Dr. Fagge, in the early part of the discussion, that when salicylates are brought to bear upon the fever in the first days of its existence we shall see a notable diminution in the heart disease; for in my experience, during the whole administration of salicylates it has been exceedingly rare to see heart disease springing up." He next adds, as a matter of great moment, that his "own very strong opinion is, that it is not merely as dealing with fever that the salicylic compounds act. They have little influence over pyrexia due to other causes than rheumatism. In relieving the fever of typhoid, for example, they are not to be compared with quinine; and, indeed, my own experience of the salicylates in enteric fever has not been favorable. It appears to me that in some way or other the salicylic compounds antagonize the disease rheumatism, whatever it may be." He then concludes his remarks: "I will not enter now upon the discussion of the various hypotheses which have been advanced as to the nature and cause of rheumatism—that of Dr. Maclagan, for instance, or that of Dr. Latham. I must, however, express my dissent from Dr. Maclagan's theory of its malarial origin and bacterial cause, which does not seem to fit in with all the facts in the history of acute rheumatism. Again, I can not accept the existence of the special chemical co-ordinating center of Dr. Latham, and therefore I am unable to receive his conclusions drawn therefrom. In saying this, I do not mean to imply that I deny to the nervous system any share in the production of rheumatic fever. I object simply to the establishment of another of those centers which are postulated for anything of which we want an explanation."

If we may consider the value of salicylic acid as established, it remains for the physician to select such form of the medicine as may be administered with the least inconvenience, discomfort, or danger to the patient, and by means of which a sure, safe, and prompt effect is most readily reached.

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THE wise Solomon said: "A physician that does not pay for his medical journal, should not complain when his patients do not pay him." This rule has no exception.

Clinical Society of Maryland.

STATED MEETING HELD MARCH 16, 1883.

THE society was called to order at 8.30 P. M. by the President, Dr. Samuel Theobald.

Dr. H. M. Simmons read the report of a case of death from vaccination. As Extra Vaccine Physician for the Tenth Ward of Baltimore, he had vaccinated in the family of Michael Rolf, No. 11 Welsh Alley, the latter part of January, with good results in the majority of cases and no unpleasant sequelæ. Genuine vesicles appeared in all the primary cases except one. February 23 the operation was repeated upon those in whom it had failed before, among the others, in an infant nine months old and apparently in perfect health, whose arm showed no sign of having "taken" before. "National virus," obtained from the City Health Department the previous morning, was used. An abrasion was made with the pointed end of the quill, about one-sixth of an inch in diameter, and no blood was drawn. The subsequent history of the case was obtained from the family and attending physician, Dr. Simmons not having seen the child before its death, and learning first of the fatal result through the publication in the daily papers. Nothing seems to have been noticed until the ninth day, when the child became fretful, had fever and swelling of the lymphatic glands of the neck and axilla. Simultaneously a measly eruption developed upon the abdomen and extremities. Dr. Crim was now called to see the case, which he at first supposed was diphtheria. Poultices were applied to the neck and internal treatment ordered. The next day the doctor found no further evidences of diphtheria, and his attention was directed to the condition of the arm, which did not present the appearance characteristic of true vaccination. The scab was concave, of a dark, reddish hue and with contracted margins. The neighboring skin presented a rough, chafed appearance, and was dotted with ecchymoses extending almost to the hand, which was somewhat swollen. The arm appeared to be paralyzed and was greatly swollen in the axilla, the glands being involved. Digestion continued unimpaired, and the child took nourishment greedily. The cervical glands were swollen, but did not interfere with deglutition. Convulsions occurred on the third day of the sickness, and twelfth after the operation, and death ensued on the following day. No constitutional taint could be discovered in the parents or grandparents, all of whom are living and in good health. This was the only instance in Dr. Simmons' experience where serious results occurred, and he was unable to account for the result. Since his attention had been called to the subject, however, he had learned from authentic sources of cases in which erysipelas, pyæmia, gangrenous ulcer, suppuration, glandular involvements, eruptive disorders, etc., had resulted from vaccination, proving that it is by no means free from danger.

Dr. Morris said four deaths from vaccination are reported to have taken place recently in Norwich, England, and have given rise to considerable excitement. The *Lancet* accepts the theory of Dr. Buchanan as to their origin, *i. e.*, that they resulted from the use of a point which had been used before, the poison being thus conveyed. A number of fatal cases occurring in this city had recently been reported to him.

Dr. Atkinson said Dr. Simmons' experience was unfortunate, but it was always to be expected now and then. In a certain number of vaccinations, erysipelatous inflammation will result. The same would occur if the arm were scarified with glass or pricked with a pin. A definite proportion of fatal cases is to be expected, as in all injuries in which the horny covering of the skin is removed and an absorbing surface laid bare. He did not believe in such a thing as vaccinal erysipelas; its occurrence is purely accidental. Had known spittle to be mixed with virus; would expect very unfavorable results in such case, from the decomposition of the saliva.

Dr. Latimer has seen five cases of axillary abscess following vaccination. In one case this was followed in a week or ten days by a second abscess in the deltoid muscle. All got well. This suggests one mode in which septic absorption might occur. He had seen no erysipelas, and was not disposed to believe in vaccinal erysipelas any more than in the case of other surgical injuries. Had seen a number of cases of vaccinal eruptions, all accompanied by much itching. Had seen to-day a case in which there was a large sore on the cheek the size of a silver dollar, and another on the calf of the leg; in addition, there were a dozen or more pustular sores scattered about the body. It was a question with him whether some cases of small-pox might not have resulted from vaccination. Dr. Howard, Quarantine Physician, had not been able to account for some cases except upon this supposition, an eruption having followed vaccination which could not be distinguished from true variola. Had seen a dozen cases of eczematous eruption, and to-day saw a gentleman with an eruption resembling lichen.

Dr. Meierhof reported the case of a young man who was vaccinated in January. The vaccinia pursued a normal course, but in twelve to fifteen days he had pain in the knee-joint preceded by a chill. Three days after the pain began, there was a large and boggy swelling of the knee. There was very little constitutional disturbance—some swelling of the axillary glands. He also had eczema during the period—he had been subject to this affection as a child. He has now entirely recovered and returned to business.

Dr. Atkinson did not believe small-pox originates from vaccination, but vaccinia is often mistaken for the former; he knew of a number of cases of this. He believed in the identity of small-pox and vaccinia, to which thousands of cases in England and many in our own city, where persons had been vaccinated with virus from the heifer inoculated with variolous matter, testified.

Dr. Erich referred to the greater intensity of bovine vaccinia. He thought bovine virus gives more protection than humanized, but preferred the latter, one remove from the cow, as being less irritating.

SPECIMEN OF CHANGES IN NERVES IN A CONICAL STUMP.

Dr. Coskery exhibited the specimen. A man, aged fifty, a notorious drinker, was admitted to the City Hospital, June, 1882, suffering from a compound comminuted fracture of both bones of the leg. An attempt was made to save the limb. Hypostatic pneumonia followed, from which he never completely recovered. In October the end of the bones was resected. The patient afterwards became septicæmic, and this, with catarrhal pneumonia, was still present when, December 16, 1882, it was deemed necessary to amputate the limb. The soft parts retracted, leaving the femur bare. Death took place ten days ago, nine months after the accident, from the pneumonia. This was the first case of conical stump Dr. Coskery had seen. It resulted in consequence of the inability to separate the nerve from the artery, the ligature, therefore, including both. In 1866 he had taken the ground that the artery should be separated and tied alone, and had never since that seen any need to dissect the artery from the nerve until this case. The specimen exhibited two bulbous masses of nerve.

SPECIMEN OF TUMOR OF BRAIN.

Dr. Chambers exhibited this specimen, which was obtained from a woman, æt. fifty-four, in moderately good health before November last. At that time she began to complain of headache, apparently "neuralgic," but not amenable to the treatment employed. At the beginning of December she had an epileptic convulsion, and this was accompanied with paresis of the right arm and leg. She gradually improved after the convulsion, although the headache continued. In January she had another convulsion, accompanied with almost complete paralysis. She again grew better, but the paresis never entirely disappeared after its first appearance. February 1 she had a third convulsion, and about this time she exhibited some little difficulty of speech. She grew worse after this and died six days ago. On *post-mortem* examination a tumor was found situated in the anterior part of the left hemisphere of the brain, just in front of the fissure of Rolando, and involving especially the second frontal convolution. This tumor was examined microscopically by Dr. N. G. Keirle, who pronounced it carcinoma. The ventricles of the brain were very much dilated, and death was no doubt caused by the pressure consequent upon the presence of the intra-ventricular fluid. No other part of the body could be examined, but there was no evidence to indicate disease elsewhere. Digestion and appetite were good. The headache was intense. In the first attacks there was no unconsciousness, but this was observed later. There was no psychical trouble until the latter part of February. There was no loss of sensation on the paralyzed side. The muscles of the face were not implicated in the paresis.

Dr. Councilman remarked that carcinoma of the brain is one of the rarest forms of the disease.

Dr. Branham said Rosenthal says in his recent work that such cancers are quite common.

SPECIMEN OF ABNORMAL RENAL ARTERIES.

Dr. Winslow exhibited a specimen in which there were two renal arteries on one side, and three on the other, all arising from the aorta. The veins were normal.

REDUCTION OF DISLOCATED HIP WITHOUT THE AID OF THE LEG.

Dr. Tiffany reported the case of a woman, æt. twenty-two, whom he had called to see in consultation in consequence of a dislocation of the right hip-joint. In early childhood—probably before her second year—she had had disease of the right knee-joint, which had left her with many cicatrices of the right lower extremity; the femur and tibia did not touch each other, and there was motion in every direction at the knee-joint. The limb was shortened, and when the patient walked the tibia went up behind the femur. Locomotion was possible as long as the perpendicular posture was maintained, but when this ceased the patient went over. It was in this manner that she slipped and fell on her right side, twisting her leg and displacing the head of the right femur, which was seen and felt as a prominence below the anterior superior spinous process of the ilium. On giving an anæsthetic and attempting reduction, difficulty was experienced in consequence of inability to use the leg as a lever; it was impossible to make rotation of the head of the femur. The limb was then encased in a plaster splint, made stiff by letting strips of wire gauze into it—the gauze and plaster alternating. After twenty-four hours this had hardened so as to be available, but it failed entirely, slipping and producing no rotation. Then a plaster splint was made, fitting pretty tightly the limb. One-half inch was cut out of the anterior aspect of this plaster casing, an anæsthetic administered and the splint bandaged as tightly as possible to the limb, so that the splint closed up in front. Rotation was now easily effected, and the dislocation was reduced in a few minutes. The treatment of the case was extremely puzzling, without any assistance to be derived from the leg. The foot got cold in consequence of the tightness of the bandage, but the pressure lasted only a few minutes To-day is the fifth day since the accident. No extension was made. The patient was apparently in good general health.

HINTS ON THE TREATMENT OF SOME OF THE PARASITIC SKIN DISEASES.

Dr. Rohe opened the discussion of this subject with a paper. He confined his attention to diseases caused by vegetable parasites, *i. e.*, tænia favosa, tænia tricophytina and tænia versicolor. These are clinically distinct and easily discriminated.

Tænia favosa is rare in the United States—only forty cases were reported last year to the American Dermatological Association. It is characterized by the formation of yellow cup-shaped crusts on the head, each having in its center a hair, and emitting an odor said to resemble that of mice. The fungus, consisting of mycelium and spherical spores, is known as the *achorion Schœnleinii.* The object of treatment is the destruction of the parasite. The crusts are to be removed by soaking them in olive oil or lard; the hairs are then to be pulled out and parasiticides to be applied, as sulphurous acid or corrosive sublimate (gr. i. to iii. to the ounce). Baldness is liable to occur if the disease continue long.

Tinea tricophytina, or ringworm, has received different names according to location. When involving the scalp, the stubby condition of the hair is distinctive. One stage of the disease, known as kerion, is characterized by an inflamed boggy and tender condition of the patch. The treatment of ringworm consists of cleanliness and carbolized oil (one to sixteen) rubbed into the patch, after washing, so as to displace the fungus. The rest of the scalp should be included in the rubbing, in order to prevent the extension of the disease. Sulphurous acid is also effectual, but there is a liability to have the druggist put up sulphuric acid instead of sulphurous. Dr. Rohe had incised the boggy tumors of kerion, and then rubbed the oil in them with favorable result. Ringworm of the body is best treated by pure sulphurous acid applied to the patches. Ringworm of the face is usually gotten through the barber. An effectual application in this is corrosive sublimate, gr. i. and ii. to the ounce. In tinea of the beard or sycosis, all the tumors should be opened, and oleate of mercury, five per cent., freshly prepared, should be kept constantly in contact with the part. In ringworm of the thigh and genital region, or eczema marginatum, the inflammation and parasite both demand attention. Sulphurous acid should be applied, followed by ung. Hebra, or ung. oxid. zinc. Benzoic acid ʒ i. to water Oj. is an effectual parasiticide, and relieves itching.

Tinea versicolor consists of brownish or yellow spots over parts covered by the clothing. These spots are irregular and roundish in patches, with intervals of sound skin. The most effective remedy is a lotion of the hyposulphite of soda—ʒ ss. to ℥ j. water—applied after washing the part. The spots disappear in a week, but the remedy should be continued for a week or two longer. This affection is often treated for syphilis, and the treatment has been known to be continued thus for years.'

Dr. Rohe has never had occasion to use crysophanic acid, tincture iodine, etc.; in nearly all cases, if properly used, the above agents suffice.—*Md. Med. Jour.*

Some Delusions Regarding the Oyster.

BY CHARLES L. DANA, M.D., OF NEW YORK CITY.

THE oyster does not present a very lofty theme, and I venture to apologize first for calling attention to it at the present length.

Mr. Herbert Spencer, in his address upon America, made no reference to this interesting animal, and we are left to infer that it has no importance in American society, and no definite relation to the problems of evolution. But one may fairly claim that this is a neglect, and that he went too far in ignoring what is so unobtrusive. For the oyster represents, very typically, that absence from work and worry which should characterize the evolved life toward which Americans are advised to strive. Furthermore, the oyster, besides thus offering us certain valuable ideals, is a very considerable factor in the social life of the "R" months.

With this preamble, I venture to submit some corrections of prevalent errors regarding the mollusk in question.

First. That the oyster digests itself. For several years the statement, quite uncontradicted, has been going the rounds of the press, that the oyster digests itself. I believe that Dr. Wm. Roberts first gave currency to it. The theory is that the oyster has a large liver, which contains a diastase, and that this diastase, in some inscrutable way, digests the whole animal, under suitable conditions. Thus it has become a widespread belief that the oyster, taken in the stomach, does, by virtue of its liver, execute a kind of *felo de se*. Such a belief is very consoling when a person is committing midnight indiscretions with *ostrea edulis*, and it is unpleasant to be obliged to dispel it. Yet it is a fact, which the accompanying record of experiments will show, that an oyster has no more self-digestive power than a man. The hepatic disatase referred to has no powers except to change glycogen into sugar—a very trivial matter. It cannot even digest the liver tissue. I have kept oysters, previously crushed between the teeth, in water (temperature 100 degrees F.) acidulated, and neutral, for hours, with no resulting digestion whatever. I have even dissected out the liver, and given it the best possible chance to eat itself; but neither the mystic diastase nor any other ferment at all affected its succulent autonomy. The oyster does not and can not digest itself.

Second. That raw oysters are always more digestible than the cooked. I quite admit that the ordinary stew is less digestible than the plate of raw oysters. The stew generally contains milk, butter, and a large number of oysters, all of which complicates the question. Half a dozen oysters, however, roasted in the shell, or simply boiled a short time, will be digested nearly if not quite as rapidly as the same number of raw. Cooking coagulates the albumen, but coagulated albumen may be more digestible than raw. Thus the white of an egg, unless thoroughly beaten, is slowly digested, and similarly, raw beef has to be finely minced in order to be quickly affected by the gastric juice. Cooking, on the other hand, lessens the tissue binding together the muscular fibrils, and allows the peptic juices to penetrate.

Third. That fermented liquors dissolve or digest the oyster. Currency has been given in the *Reporter* and many other journals to the following highly instructive tale: Rev. Dr. Houghton, of Dublin, clergymen, physician and physiologist, was sitting with a friend in a restaurant. Raw oysters had been brought them. Believing, however, that it is proper *desipere in loco*, Dr. Houghton's friend ordered brandy; he himself ordered ale. Wishing to demonstate the wisdom of his choice and the beauty of physiological processes, Dr. Houghton poured some brandy into one glass, and ale into another, and then dropped an oyster into each. The oyster in the brandy grew hard and shiveled; that in the ale gradually melted away into a diffusible invisible solution. *Moral:* Drink ale with oysters.

Now Dr. Houghton's name and authority have great weight. I doubt if the incident related really occurred, yet it is widely circulated and credited. But it is quite as well, if one is bound to have bad and bibulous habits, to put them upon as near as possible a physiological basis. Therefore I venture to deny the possibility and accuracy of Dr. Houghton's alleged experiment, at least as regards American oysters. These grow hard in ale or beer, instead of dissolving.

When any one becomes so dissolute, therefore, as to drink fermented liquors with his oysters, he should not allow his habits to be confirmed by a false confidence in the potency of malt diastase.

Hemorrhage from the Navel after Detachment of the Funis.

BY U. C. LYNDE, M.D., BUFFALO, N. Y.

THE cord is usually detached after the lapse of five or six days from the birth of the child. Hemorrhage from the stump is uncommon; but when it occurs, it is fatal, unless checked by surgical means. We are not now considering those cases in which there is but a mere oozing of blood, but those only from which there is an actual flow of blood. Most practitioners of large obstetrical experience have met with cases that have proved fatal, notwithstanding all their efforts to arrest the hemorrhage. This hemorrhage takes place from the umbilical arteries, and, owing to the soft and yielding parts beneath, compresses are of no avail. Collodion, astringents, styptics, escharotics, have all been tried in vain. Some of these deceive the practitioner by temporarily checking or arresting the hemorrhage which returns in his absence and proves fatal to his patient. Dr. Gross recommends the twisted suture; but the conformation and tenderness of the parts, together with the susceptibility of the patient, render this method objectionable. Dr. Francis Minot, of Boston, gives us, as reported by Dr. Gross, a published list of forty-six cases, in which thirty-nine proved fatal. This list probably includes some cases of mere oozing of blood. Dr. Gross mentions four fatal cases in his own practice. He does not tell us how many he has had. Having lost my first patient, after resorting to the usual means for arresting hemorrhage at this site, I resolved that if ever I had another, I would not hesitate to use such means as would insure the life of my patient as against hemorrhage, at least. My next patient had bled until it was about as white as a sheet when I first saw it. After arming a straight, round needle, having a large eye, with surgeons silk as large as could be drawn through it, my patient was placed upon a pillow, on his back, upon a table, and chloroform administered. A common tenaculum was inserted as close to the stump as practicable, at the apex of the inverted hollow cone, and, by gentle traction, this cone or cup was inverted, its apex being made convex and pointing toward the operator; and, at the same time being made to rise above the level of the surrounding surface of the abdomen. The needle was now made to transfix the stump from which the funis had been detached, care being taken not to dip deep enough to wound the peritoneum. The double ligature was cut, leaving both ends long enough to tie conveniently. Again the stump was transfixed; this time at right angles to the first, and the threads cut off as before. The threads were carefully separated and tied so as to include the entire stump, but tied only tight enough to stop the hemorrhage, and *not* tight enough to strangulate the parts that were included. The ends of the ligatures were now cut close to the knots, the tenaculum removed, and the parts allowed to resume their normal position, that of a hollow cone with the apex pointing toward the abdominal viscera. After a few days the thread was cut and drawn out, no hemorrhage followed and my little patient survived and is now almost a man. Since then I have operated on two cases with like results. In making this little operation the *size* of thread and the *kind of needle* used are important. The *inversion* of the *hollow cone* and the *transfixion* of the *stump* are to be carefully performed. Tying the ligatures is a matter more of observation than of sensation, as the entire cessation of the hemorrhage is the surgeon's guide, unless holding the parts with the tenaculum has so checked the bleeding as to destroy this means of judging, and then the surgeon must judge as best he can of the force he uses by the sensation upon his fingers.—*Buffalo Med. and Surg. Journal.*

Reduction of Dislocations of the Humerus.

Mr. J. E. Kelly, of Dublin, has suggested a new method of reducing dislocations of the humerus that we think promises well. The method is described thus: "For the operation a bed firmly fixed is of importance, and should be, if a subglenoid dislocation is to be reduced, about three inches lower than the great trochanter of the operator, while one lower still by a couple of inches for the anterior dislocation, and a little higher for the posterior, allows the force to be applied advantageously in the direction of the glenoid cavity. The patient is placed on his back on the bed, close to the edge, with his head low. Mr. Kelly divides the operation into two stages. In the first, the operator places the injured arm at right angles to the body, and standing against it, with his side to the patient and his hip pressed firmly into the axilla, folds the arm and hand of the patient closely round his pelvis, and fixes the hand firmly, by pressing it against the crest of his ilium. The second stage, during which reduction is affected, consists merely of a rotation, or version, of the operator's body with a force and rapidity which will vary with the nature of the dislocation. For any additional manipulation the surgeon has the hand next the patient's axilla disengaged for such manœuvres as lifting the head of the humerus into its cavity, making traction upon it forward or pressure backward, according to the nature of the accident. By this method no assistant is needed, and an anæsthetic does not require to be administered" (London *Lancet*, wky. ed., pp. 995–996, Dec. 9th, 1882). It appears to us that a trial of this plan before proceeding to anæsthesia, and more especially in recent dislocations, would be eminently proper. That dislocations are amenable to reduction without anæsthetics is becoming more and more recognized. Your reporter has himself reduced a recent dislocation of that troublesome variety, the foot completely inwards, without ether, within the last week. But more than this the method commends itself in the firm grasp we secure of the limb, the rounded, blunt surface projected into the axilla (the thigh of the operator), and the amount of physical force at our disposal in returning the displaced bone to its normal position.

In connection with the subject of reduction of dislocations of the humerus, or, as it seems to us, of any other dislocation, we would call attention to the paper of M. Kocher, read before the International Congress in London. Starting with the assumption that the position of the rent in the capsule of the joint is first to be considered, and that as it shall be made patent or closed will be the probabilities of reduction, he advises as follows in cases of subcoracoid dislocation of the upper arm-bone: "The patient should be seated with the surgeon on his left hand. The elbow-joint is first to be flexed to a right angle, and the joint firmly pressed against the side of the chest; then while holding the elbow in contact with the body, the arm is to be slowly, gently and steadily rotated out until firm resistance is encountered; then maintaining this rotation the arm is to be raised forward and a little in, and lastly to be rotated in and the hand brought toward the opposite shoulder. M. Kocher has succeeded in twelve cases of dislocations, varying from three weeks to four months old" (wky. *Lancet*, Nov. 4, 1882, p. 773). While we agree with the *Lancet* that "we believe this method of reduction is worthy of far more attention than it has yet received," still we fear that the directions are a little complex and hard to remember.

A remarkable case of dislocation of the humerus is reported in the *Lancet* for Dec. 2, 1882, by Mr. Moxhay, in which both ends of the humerus changed their respective normal positions, the upper end slipping forward under the coracoid process (reduced seven weeks after, the patient being under the relaxing effects of tartarized antimony), the lower end of the humerus upon the anterior surface of the bones of the forearm.

Two interesting points are suggested by this case; the effects of tartar emetic, and the cause of the dislocation. Of the first it is unnecessary to say more than that now it is a curiosity. Of the second we can not see how it could have happened otherwise than, as is stated in the report, it followed a blow upon the back of the upper arm. But as it is not mentioned, we take it that both the scapula and the forearm were fixed, and the upper extremity was in the state of flexion. That the hand firmly grasping an immovable body, the humerus projecting somewhat backwards, and the head of the bone pressing upon the anterior portion of the capsule, while the trunk and scapula were fixed, a blow upon the back of the upper arm would force it, the movable portion of the body, forward and away from its two articulations. The case seems to be, as the author remarks, "unique."—*O. J. C. Md. Med. Journal.*

On Strictures in the Upper Aerial Duct Caused by Scars.

In Volkmann's *Sammlung Klinischer Beitrage*, Dr. Jacobson publishes his experience with these strictures. They are caused mostly by traumatic influence. Syphilis is the source of a good many; and the author gives the autopsy of a woman, where the stricture was found in the fourth tracheal ring. Of infectious diseases causing strictures, typhoid fever, small-pox, diphtheria and glanders are named. There is stenosis of the upper part from its non-use, in persons who have undergone tracheotomy. Congenital stenosis is interesting from an anatomical standpoint. There are stenoses from granulations produced by ulcerative processes in the trachea, on the margin of ulcers. Stenoses may be provoked by defects and loss of substance, with consecutive reparation by scar tissue and shrinking; by thickening of the of the submucosa and of the perichondrium, caused by long-continued and deeply situated inflammation; in fractures and luxations by dislocations of the cartilages and their segments, by anchylosis of the joints of the ring and ary-cartilage, and by partial or total extirpation of the vocal cords. The cartilages being intact, there is but a slight narrowing, but otherwise these are the most indurated and narrowed strictures. Beneath the stricture the aerial duct is often dilated, with emphysema of the lungs. The strictures are single or multiple. They are membranous, ring-like, cylindrical or funnel-shaped. A slight stricture often gives no symptoms. Troubles in respiration are often more dependent upon such complications as swelling, accumulation of mucus, etc., than upon the degree of constriction. The first symptom of a stricture is very often a sudden attack of severe dyspnœa. In other cases, the trouble in respiration begins slowly, and that especially after traveling or long speeches. Respiration becomes gradually more difficult, and there are heard, even at a long distance, certain laryngo-tracheal noises. Here local pain is frequent, with croup and dysphagia, and the voice is more or less changed, according to the seat of the stricture. The diagnosis has to be made *by palpation of the larynx and trachea*, the laryngoscope being often of no use whatever. The seat of the stricture is of the greatest importance for the treatment of the case. After infectious diseases, the larynx is especially affected; in syphilis the stricture is mostly above the ring cartilage, and strictures of traumatic origin are found in the upper part of the throat. Strictures of the larynx change the voice considerably, and this is often noticed before the impeded respiration. Dysphagia, cough, and local pain are frequent. The trouble in respiration increases rapidly, and the larynx makes forced motions down to the jugulum and back. If the patient has undergone tracheotomy, the larynx has to be examined by a fenestrated canule, or by bougies or sounds. In strictures of the trachea or of the bronchi, the voice is clear, but weak; trouble in respiration increases gradually; stenosis of a main bronchus causes abolition of the respiratory murmur in the respiratory lung. The deeper the seat of the stricture, the more unfavorable the final result. The caliber and condition of the walls are of the greatest importance in the treatment. —*Correspond. Blatt. f. Schweizer Aertze.*

On Contagious Pneumonia.

BY G. E. COULTHARD, M. D., FREDERICTON, N. B.

I HAVE been much interested in reading in *Braithwaite's Retrospect*, Vol. 84, p. 229, and Vol. 85, p. 84, of several cases of contagious pneumonia, so-called, and would like to give my experience with what seems to be the same disease, in the hope that the attention of your many readers may be called to cases that may have occurred to them:

On Sunday, January 7, at noon, I saw for the first time E. O. L., a stout, fleshy, well-developed woman, æt. 73, the wife of a farmer in comfortable circumstances. On Wednesday, January 3, at six P. M., after doing a "moderate washing," she was seized with severe pains in the right side, attended with frequent annoying cough and chills. She went to bed, and kept getting worse, the cough being associated with a rusty viscid expectoration, the heat of the body increased, and the respiration hurried and at times difficult and painful. She kept constantly getting weaker. On Sunday, the 7th, the clergyman of the parish saw her, and advised her husband to secure medical aid at once. When I arrived I found her propped up in bed, face dusky, features pinched, anxious, and wearing an expression of pain. Respiration rapid, about 40; temperature 103°; pulse 136, rapid, weak, intermittent and shuffling. On physical examination, whole back of right chest was dull on percussion and respiration bronchial. Ordered stimulants freely, and beef essence, cataplasms over affected lung. Saw her again the following morning and found her in a state of collapse, and death took place at 4.40 P. M.

On the following day (Tuesday), early in the afternoon, her husband, æt. 73, a rugged old man, whose life had been a continuously healthy one, was taken with sharp pains beneath lowermost part of sternum—cough and sense of chilliness. I saw him at seven P. M., and found him sitting up in an easy chair, face flushed, and skin of forehead and neck and conjunctivæ of yellowish hue, breathing hurried, about thirty-six per minute, pulse 120—not very strong. He complained of the sub-sternal pain and excessive weakness. The cough was slight, with no expectoration. On physical examination, found slight crepitation in the lower part of the right lung posteriorly—no other physical signs. I ordered him to bed, and prescribed diaphoretics, cough mixture, quinine, stimulants with concentrated nourishment, and a mustard cataplasm to be applied. Saw him the following evening, when he reported himself better. The improvement, however, was imaginary, and arose from the excitement attending the removal of his wife's remains. The crepitation in the right lung had extended. Respiration was broncho-vesicular, 40; temperature 104°; pulse 130, fuller and stronger than the day previous. The jaundiced hue was deeper, the face more dusky, the countenance more anxious. The cough was worse, and the expectoration rusty and viscid. Saw him on Thursday, and on Friday, the disease still keeping on unchecked, the pulse growing weaker, and the lung continuing a course toward complete consolidation. On Saturday morning he was in a state of collapse, and realized that the end was fast approaching. He died the following morning.

Here we have the history of two cases of lung inflammation in the same house, pursuing a very similar course, and each terminating fatally—the one within six days of the other. Both persons were rugged and healthy; and though seventy-three years of age, time did not bear heavily upon them. There was nothing in the location or surroundings to suggest a septic influence at work. A granddaughter, eight years old, was the only other occupant in the house. I can not conceive that the sickness and death of the husband was a mere coincidence. Following so closely upon that of the wife, there must have been some contagious or infectious agent in the case, and no other solution appears clearer to me than this: That from the breath or expectoration of the wife, as she was tenderly cared for by the husband alone during the first three days of her illness, some noxious principle gained entrance to his system, setting up the train of symptoms described.

Hot Water in Therapeutics.

Abstract of a paper read by Dr. Douglas Morton, Visiting Surgeon to Woman's Department, Louisville City Hospital, before the Louisville Medico-Chirurgical Society, August 4, 1882.

Several years ago I learned in my personal experience that no agent relieves nausea and vomiting so satisfactorily and promptly as water as hot as can be drunk. Since then, I have used it in a large number of cases, and it has been uniformly reliable. The following classification may be made of the cases in which it has been used:

(1.) Cases in which nausea and vomiting occurred at the onset or during the course of acute febrile disease.

(2.) Cases in which these symptoms were caused by overloading the stomach when its functions had been impaired by protracted disease.

(3.) Cases in which they were produced by nauseous medicines (not emetics) at the time they were taken.

(4.) Cases of acute gastritis caused by the ingestion of irritants.

(5.) Cases in which these symptoms were purely reflex.

(6.) Cases of chronic gastritis.

(7.) Cases of colic in newly-born infants.

(8.) Cases of flatulent distention of the stomach.

Among the cases of Class 1 was a case of diphtheria and one of puerperal septicæmia, as well as one of tuberculosis, in which the stress of the disease fell upon the digestive apparatus. In each of these a half-glass of hot water always gave prompt relief when every other remedy failed. The most impressive and permanent results of this remedy seem to be in cholera infantum—hot water being retained when everything else was rejected; and it would so compose the stomach that food could be given almost immediately afterward.

The nauseant medicines mentioned in 3 are often retained if given in hot water as a vehicle. When an enormous quantity of whisky has been drunk, and the stomach will not tolerate anything else, hot water will be retained, and then food can be given.

Hot water is less satisfactory in vomiting of pregnancy, yet it is of considerable value in many cases.

In the various manifestations of indigestion, classed 6, 7 and 8—hot water is almost invariably followed by good results. In dyspepsia it may be given before each meal, as well as at other times, to cause the discharge of any undue amount of gas in the stomach by eructation. In this way it affords relief to young infants suffering from colic, and it is rarely necessary to prescribe anything else. It has been used successfully in a case of severe palpitation of the heart from dyspepsia.

The *decongestive* and hæmostatic action of hot water have been variously accounted for by gynæcologists. Dr. Pitcher, of Detroit, thought that when applied to a bleeding vessel, the immediate effect is dilatation, which sufficiently slows the current to form a clot; and constriction occurring afterward, the clot is firmly held and the lumen of the vessel closed.

Dr. Emmet says that the direct result is relaxation of the coat and vascular turgescence; afterward, if continued, reaction follows and contraction occurs.

Carl Richter, of Berlin, thinks "the contact of the hot water with the partially denuded inner wall of the uterus causes a slight inflammatory irritation, an œdematous transudation, and a swelling of the tissues, principally the submucous, intermuscular, and perivascular connective tissue, by which the blood vessels become compressed and their lumina thereby occluded."

The action of hot water upon the uterine or gastric mucous membrane or upon abnormally full or bleeding vessels in any part of the body, may be readily and simply explained by a well-known physiological principle, viz.: that of watching a frog's foot while a needle is drawn across without injuring the membrane. The vessels will presently contract and close, and after remaining so for a few minutes, will dilate to respond no more, or only partially, to such stimulus. With a stronger stimulus, as that of gentle heat, they will again contract, and such contraction may be lost a day or two.

Wharton Jones found that cold causes speedy constriction, quickly followed by dilatation.

Beaumont, in his observations on St. Martin, found that the ingestion of cold water was followed by blanching of the gastric mucous membrane, quickly followed by more than normal redness. Now, from whatever cause nausea and vomiting may arise—from the direct contact of an irritant, or the effect of an emetic, or from reflex nervous influences, it is certain in many instances, and probable in all others, that the vaso-motor centers controlling the gastric blood supply are also influenced and gastric hyperæmia produced; and thi condition being the link in the casual chain which is broken by the contact of the hot water on the gastric lining, the effect fails to follow. In flatulent distention of the stomach the muscular coat, impeded by the gaseous pressure, is excited to extraordinary work, and the gas is expelled. Patients who begin taking hot water to allay nausea, can not only take large quantities without inconvenience, but get to liking it; and at times, when little or no water can be taken, by drinking it hot, enough can be retained to fully meet the requirements of the organism. This fact has an important bearing in therapeutics. Often in both acute and chronic diseases, the issue depends solely on the amount of work that the kidneys will do. In many diseases, the structure of these organs, though not primarily affected by the morbid process, is liable to damage secondarily. The injury may be due rather to the concentration of the urine—the small amount of water—than to the absolute amount of solids; so that the kidneys become clogged with destructive, effete matter if sufficient water fails to flow through them. But dilution of the urine is not the only good resulting from the free drinking of water. The skin is put to work and carries off a large portion of the effete matter that would otherwise have to pass through the kidneys.—*Louisville Medical News.*

Manganese in the Treatment of Amenorrhœa.

Drs. Ringer and Murrell write the *Lancet:* "We are desirous of calling attention to the value of a very simple remedy in a very common complaint. For some time past we have used permanganate of potash with much success in the treatment of certain forms of amenorrhœa, and are satisfied of its value. Our observations have extended over a period of thirteen months, and we have now notes of sixty-nine cases. The majority occurred in hospital practice, but some were private patients. A small number remained under observation for a few weeks only, but the majority continued to attend for a much longer period; so that in some instances we have a complete record of the menstrual history for a year or more. In some cases the amenorrhœa was the cause of the patient seeking advice; in others its existence was mentioned incidentally, the patient suffering from some other complaint. Our cases are such as come under the care of the general as distinguished from the obstetric physician, and do not include those requiring operative interference. As a rule we refráined from making a vaginal examination, but with this exception our notes are complete. We have used the permanganate in two forms, first the pharmacopœial solution, and secondly the permanganate made into pills, each containing either one or two grains. Generally we begin with a grain three times, and then gradually increase the dose to two grains four times a day. Our most striking results have been obtained with the larger doses; a large dose sometimes succeeding admirably after the failure of a small one. Before commencing treatment we inquire carefully into the menstrual history of the patient, and as a rule give the remedy only for the three or four days immediately preceding the expected period, but should it fail to produce the desired effect we direct the patient to continue steadily taking it, and in some cases it has been taken continuously for nearly three months. In our experimental observations we have given the one drug only and have done nothing in the way of accessory treatment. Our most striking results have been obtained in young women between the ages of eighteen and twenty-five, who, from some accidental or trivial cause, such as catching cold or getting wet, have 'missed' once or twice after having been regular. The administration of one or two grains of permanganate of potash in pill three or four times a day for a few days before the time of the expected period will bring on the flow almost to a certainty. In some instances the periods were brought on after the patient had ceased menstruating for over a year. In the case of country girls who have 'seen nothing' for a month or two after coming to town the treatment has answered admirably. Often enough patients do not consult their doctor until they are 'overdue,' until the time of the expected period has passed by for some days. Even then the prompt administration of the permanganate will often bring on the flow at once, but should it fail to do so the treatment ought to be continued, and the patient will probably menstruate normally at the next monthly time. Generally our efforts are not crowned with success until the medicine has been taken for at least three or four days, but in some instances the permanganate acted with striking rapidity, the menstrual flow making its appearance after only two or three doses had been taken. It is not necessary to discontinue the treatment on the appearance of the menses; in fact we generally tell the patient to continue taking the pills three or four days longer, finding it facilitates the flow. The permanganate often succeeds well after the failure of other remedies, such as iron, aloes, nux vomica, strychnia, pulsatilla, nitro-glycerine, and hot mustard baths. Sometimes, however, it is necessary to give it for six weeks or even longer before the desired result is obtained. In those cases where the patient has menstruated only once or twice, and has then entirely ceased for some months, our treatment answers well; the menstrual function is re-established, and thenceforth proceeds normally at every successive monthly period. In some cases there was no actual amenorrhœa, but the flow was scanty, lasting perhaps only a single day, or it may be only a few hours. Here the administration of the permanganate prolonged the flow, and even in some instances when it had ceased brought it on again.

"In girls of about fifteen or sixteen, who have never menstruated at all, the permanganate, as might be expected, is not so certain in its action; but even here it not infrequently acts promptly, bringing on the flow at once. In some cases where the general health was bad, and the permanganate had failed, we suspended treatment for a time, and sent the patients into the country for a month. On their return we gave the permanganate a second trial, and it succeeded at once. We have, however, sometimes failed to bring on the menstrual flow even when the patient was in fairly good health, and when there were the usual indications of puberty.

"It is not only in the case of young women that manganese is so useful; it succeeds almost equally well with women between thirty-five and forty, who, as the result of many pregnancies and much suckling, have ceased to be regular. Here, for example, is a typical case. A married woman came to us complaining that she was never regular. She had had nine children in as many years, and rarely saw anything more than once between her pregnancies. She had been suckling for eight months, and had not been poorly for seventeen months—the nine months she had carried and the eight months she had suckled. She was not in the family-way, but said she expected she would be soon if she weaned the baby. She did not know when she ought to be poorly, and had given up all expectation of seeing anything. She was ordered two one-grain permanganate of potash pills four times a day, and came on poorly a fortnight after, the first time for seventeen months.

"We need hardly say that before treating the amenorrhœa care should be taken to see that the patient is not pregnant, although we are satisfied that the permanganate given in the dose we recommend has no power to produce abortion either in the early or late stages of pregnancy. We find that manganese fails to induce the flow when the amenorrhœa is due to advanced phthisis. But in some cases of arrested phthisis the treatment was successful, and the patient, after a time, under the influence of permanganate, menstruated freely and at regular intervals. In several instances patients informed us that the pills had proved of value in curing 'whites' of long standing. As a rule the permanganate is taken without difficulty, but patients much prefer the pills to the solution. The solution is peculiarly disagreeable to take, and in some cases produces nausea and even vomiting. Patients frequently complained after taking the pills of a heavy persistent pain over the upper part of the sternum, 'as if something had stuck there and would not go down.' This was not due to the drug being given in the form of a pill, for the same complaint was made when the same dose was given in solution. One patient said the pain was of a burning character, and another said it was like heartburn. A girl of sixteen, to whom two two-grain permanganate of potash pills were given four times a day, said the pain, 'like a lump at the chest,' came on immediately after each dose, and was so intense that she had to go to bed for two hours.

"That the effects we have described are due to the manganese, and not to the potash in the salt, is shown by the fact that manganate of soda and binoxide of manganese are equally efficacious in the treatment of amenorrhœa. The manganate of soda was given in two-grain pills, two four times a day; and the binoxide in four-grain pills, one four times a day. It may be thought that the manganese acts by improving the condition of the blood, but this is not the case. The treatment succeeds equally well in the plethoric and in the anæmic. Given in cases of chlorosis,, the permanganate not infrequently brings on the period without in any way improving the anæmia."

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TUBERCULOSIS OF THE FALLOPIAN TUBES.—Dr. Justus Schramm, of Dresden, lately contributed to the *Archiv. fur Gynakologie* a short paper on the above subject. Out of three thousand three hundred and eighty six autopsies upon women he found this condition present in about one per cent.—*Louisville Med. News.*

Microscopy.

CHANGES OF UTERINE MUSCULAR TISSUE AFTER PARTURITION.—Prof. Wojtschechoffsky has examined, microscopically, ten uteri, removed from women who died within thirty-five days *post-partum*. He offers the following as the result of his investigations:

1. The fatty degeneration of the uterine muscular tissue, upon which the diminution in size of the uterus depends, begins immediately after parturition, and covers a period of more than five weeks.

2. The degeneration attacks alike all parts of the organ (fundus, corpus and collum).

3. It could not be ascertained whether the process began at an earlier period in the outer or inner muscular layer of the uterus.

4. The interstitial tissue of the uterus does not take an active part in the process of involution.

5. The process of obliteration of the blood-vessels covers a greater period than the entire involution.

6. The appearance of free pigment in the uterus is not stationary.—*Deutsche Med. Zeit.*

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THE BACTERIA.—This is the title of a pamphlet of sixty-five pages by T. J. Burrill, Ph. D., of Champaign, Ill. It contains full information of the subject of which it treats, and is quite worth the price asked for it—fifty cents. Persons desiring to procure it should address the author at his residence, as mentioned.

The work is divided into three parts—treating: 1. Of the nature and organization of bacteria; 2. Of the effects of bacteria; 3. Classification of bacteria.

Of course, the existence of bacteria has been known for many years, but very recently they are attracting an interest that causes almost everything else to be relegated into the background. We can recollect many years ago, when only a boy, of hearing that minute organic forms filled the atmosphere, were in every drop of water—both pure and stagnant, pervaded the body, etc.; but while every one accepted the fact, no one seemed to take much interest in it. But now, since it is coming to be claimed that many of the diseases, to which humanity is liable, have their cause in animalculi contaminating the body—each one being produced by a kind that produces only itself—quite an excitement has arisen; and bacteria form the main topics of conversation. Even the laity are becoming interested, and it is common to hear them discoursing learnedly on bacteria, bacilli, micrococci, schizomycetes, spirilli volutantes, spirochætæ plicatiles, etc.; and woe to the doctor who, unluckily for himself, can not give the latest information in regard to myconostocs, ascococci, cladothries, beggiatoæ, cohniæ, etc. Better for him if he had never been born, for he will be regarded as grossly ignorant.

The author exposes the fallacy of a large amount of the retailed nonsense that is prevalent, showing that it is imaginary, having no truth in it. He mentions the fact, which all microscopists are aware of, that pure water, or such as is taken from a good well or spring, has absolutely no life in it. On the other hand, there are no other living things in nature, from the highest to the lowest, so widely distributed in the earth, the air and the water, throughout the world, so commonly and multitudinously present, near us, and on us, and in us, as the various kinds of microscopic organisms. Bacteria, or their allies, as he says, and as all microscopists know, exist in countless myriads in all filth, in all decomposing vegetable or animal matter, whether ill-scented or not, in all organic substances undergoing apparently spontaneous change, as heating in the mass, becoming sour, rancid or putrid, and, generally, undergoing those changes known as fermentation or decay. "The water from ill-scented cisterns, and, indeed, from many in which odor is imperceptible, contains varying numbers of those minute living creatures. The water of foul ditches, stagnant ponds, marshes and sloughs teems with them, in numbers surpassing those of the leaves of the forest; a drop under the microscope often presents a maze of living forms, more wonderful than imagination ever pictured, or of which fiction ever dreamed. The waters of running streams are more or less inhabited by them, and the ocean itself is the special home of peculiar kinds." It is quite seldom that we fail to find animalculi of some kind in the water that passes through the hydrants of Cincinnati.

As the remaining portion of this section of the part from which we have been quoting, contains much that must be interesting to many who have not had any practical experience with the microscope, we will quote it.

"The slime on vessels of standing matter, on the surface of vegetable or animal substances, like cold articles of food set away for some time, as boiled potatoes, cooked meats, etc., is composed of these organisms and their products. Brewers' yeast, used in bread-making, is not a *bacterial* material, but it is a related growth; and the so-called salt-rising, not unfrequently used in making bread, owes its energy to living bacteria. Sour milk always contains swarms of the microscopic, moving things; and during the formation of vinegar from the juice of fruits, from solutions of whisky and sugar, etc., they may always be found in similar numbers.

"They are invariably present in pus from open, suppurating wounds, in the discharge from boils and tumors on and in our own bodies, and in the fetid accumulations of the excretions of the body, as from the arm-pits and unwashed feet. If they have any connection with bad odor, no one will wonder why the breath sometimes smells badly when he examines the material which collects on the teeth or looks at the fur on the tongue with a good microscope—one having sufficient amplifying and resolving power. The cleanest human mouth can hardly be said to be ever perfectly free from these active organisms; while those to which the tooth-brush or its equivalent is a stranger, are veritable culture-boxes, or hot-houses, richly supplied with rapidly growing and prodigiously multiplying forms and kinds. We swallow them with our food, and, at least, some kinds sometimes retain their activity in the stomach and intestinal tube. It now seems certain that the latter is always inhabited by special kinds which have to do with the activities there in operation. In health, the blood is usually quite free from them; but in certain diseases this too, as it rapidly courses through the arteries and veins, sweeps along in the current myriads of the minute, but living, developing, ever active bodies, inappropriately called 'germs.' We may well say in such cases, that the 'blood is out of order,' or that the 'blood is impure.'

"What perhaps more than all else gives vivid interest to our microscopical studies of this sort, is the fact that special kinds of these tiny living beings are found uniformly in connection with the severest diseases known to man, either of himself or of the plants and animals about him. We may name as examples 'blight' in pear, apple, and many plants; hog and chicken cholera, pleuro-pneumonia and splenic fever in cattle; malaria, typhoid fever, diphtheria and small-pox in man. What the connection is between organisms and the diseases, we will leave to be considered in another part of this paper. Very recently it has been fully demonstrated that consumption, the most terrible scourge of the human race, invariably has its accompanying specific form in the diseased tissues and the exudations from them.

"It will thus be seen that these microscopic organisms are by no means unusually or uncommonly present about, upon and within us. Taken as a classified group, they are more widely dispersed and dwell more numerously everywhere, in everything, than all other living things put together. For the truth of this statement, I need only to appeal to the observation of any one who, having a good compound microscope, will take the trouble to state the facts as seen. Still it would be unfair to leave the impression that any one specific kind is thus invariably near us, or that the most common, taken as a simple species, is as widely and thoroughly disseminated as might be inferred from the foregoing. The statements made have reference to the numerous species comprised in the entire group, not to certain ones. It is one thing to say that birds are very widely dispersed over the earth; it is quite another thing to state the facts as they are concerning the common domestic fowl or the snowy owl.

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"Bacteria, as a rule, are white, and, when numerous, give to water an opalescent or milky hue. But various species have their peculiar color, which may be red, blue, yellow or green. They vary in shape, and may be spherical, oval, cylindrical or thread-like. The latter are straight, crooked, spiral, flexible or rigid. The spherical may form bead-like strings or chains. The classifications are based on form and size usually. In transverse diameter, 1-25,000 of an inch is a very common measurement.

"Bacteria have been divided into groups upon their apparent ability to move or not. Some species, at most, only oscillate and quiver in the fluid medium in which they grow—never making progress in any given direction; others slowly and smoothly glide along in a straight but more often undulating path; while still others whirl and dance and roll, turning over and on end, now spinning round and round, now swaying gently back and forth, now darting like a flash across the field. Sometimes they are seen carrying along small particles."

Microscopic Examination of the Brain and Cord of an Epileptic.

D. J. Kingsbury (*Jour. Nerv. and Ment. Dis.*, January, 1883) gives the following results in the histological examination of the brain of a chronic epileptic: In the frontal lobes and around the fissure of Rolando, increase in the cells of the neuroglia, with some obliteration of the perivascular spaces.

In the horns of Ammon there were, in addition to the above, cloudiness of the neuroglia cells, perivascular spaces scarcely noticeable, and ganglionic cells more granular than usual. Blood vessels dilated.

In the occipital lobe, dilated vessels, with spots of softening one-fiftieth of an inch in diameter around many of them, and increase of neuroglia cells.

In the ganglia the white matter was full of capillary infarcts not yet having undergone softening, showing distinct masses of blood corpuscles. Ganglion cells swollen, pigmented, highly granular. Some of the vessels had undergone amyloid degeneration.

In the medulla, increase of the cells of the neuroglia, dilated blood-vessels, swelling and granular condition of the ganglion cells.

In the spinal cord, increase of the cells of the neuroglia in the columns of Goll, and an occasional infarct or spot of softening.

The pathological changes in the brain were more marked in the right than in the left side.—*Md. Med. Jour.*

Gleanings.

The Treatment of Increased Arterial Tension.—Solomon Charles Smith, M.D., Surgeon to the Halifax Infirmary, after discussing this subject, and dwelling at length on the physiology of the circulation, concludes that the presence of increased arterial tension or blood pressure involves the existence of obstruction at one end, and increased heart-force at the other; that it is important to distinguish between these two conditions; that the form of trace usually considered indicative of high tension really only shows obstruction, which, while necessarily occurring with it, may also occur by itself; that the measure of the tension is the pressure required to stop pulsation in the artery or the circulation in the limb; and that while we should always try to reduce abnormal obstruction, we should but seldom interfere with the tension as such, unless it threaten danger to the heart or vessels.—*British Medical Journal.*

Listerine.—Dr. A. M. Owen, Professor of Surgery in the Medical College of Evansville, Secretary of Board of Health, and Ex-President of Tri State Medical Society speaks as follows of this remedy:

"I have become so thoroughly convinced of the true merit of Listerine that I can unhesitatingly confirm its claims as a perfect antiseptic.

"Since I ceased to use carbolic acid, several years ago, I have found no antiseptic or deodorizer in which I could place so much reliance as Listerine. Have employed it in dressing several after amputations; one at hip joint in child for disease of femur, one just below the joint in adult, cause the same; another, just below knee-joint, cause gangrene of foot; all made rapid recoveries, the first two cases being up and discharged well in four weeks. In a case of contracted fingers, following a burn in palm of hand, after dissecting out the integument and cicatricial tissue down to flexor tendons, extending to tips of fingers, I did not transplant any skin, but dressed with Listerine, 1 drachm; water, 2 ounces; had rapid filling in with healthy granulations, and the parts skinned over more quickly than ever before under my treatment. I have had the same good results in dressing old ulcers, and as an injection in leucorrhœa and gonorrhœa, and as a gargle in ordinary sore throat, varying the dilution according to indications. In wounds and operations generally Listerine 4 drachms, water one pint; or when to be kept constantly applied, Listerine 1 or 2 drachms, water 1 pint; in simple leucorrhœa, Listerine 1 ounce, hot water 2 pints, night and morning; gonorrhæa, Listerine ½ or 1 drachm,, water 1 ounce.

"The happiest results from Listerine have been in washing out bladders chronically inflamed. Old cases of cystitis have yielded and improved more under Listerine 1 ounce, distilled water 1 pint, than anything I have ever used."

Treatment of Varicocele.—Mr. A. Drennett Spanton, F. R. C. S., recommends in *Brit. Med. Jour.*, a subcutaneous ligature used as follows: A needle threaded with silk or catgut is passed between the vas deferens and spermatic vein, and a loop left on one side, and the free ends on the opposite. A second needle similarly threaded is then passed in the opposite direction between the vein and the skin, and withdrawn, leaving a loop as before. One of the threads is then passed through the loop on each side, the ends drawn together and firmly tied. The threads are then cut off short, and the ligature sinks away from the skin punctures.

White Lead Paint in Erysipelas.—Mr. Barwell, of Charing Cross Hospital, in the *Lancet*, March 10, gives a report of three cases of erysipelas, in which he obtained unusually good results by the application of the old-fashioned remedy, white lead paint. No medicine used, excepting, in some cases, the previous administration of a purge. He applies the paint (made by rubbing up the carbonate of lead with linseed oil, and mixed with turpentine as a dryer) over inflamed skin, and a little beyond it, says that in all cases the pain ceased almost immediately after the application; temperature became normal and a rapid cure resulted. The paint is left on until it gradually comes off with slight desquamation of epidermis. The remedy probably acts by occlusion of air. It may be obtained in any paint shop.

Blennorrhagic Periurethral Tumors.—M. Mauriac concluded a paper, read before the *Societe de Medecine de Paris*, as follows:

1. The glandular apparatus, including the glands of Mery or Cooper, and their accessory glands, is sometimes inflamed in the course of blennorrhagia.

2. The acute process nearly always ends in suppuration, and the formation of abscesses.

3. When Mery's glands are alone affected, which is the usual course, the affection terminates very constantly in a perineal abscess.

4. When the process is confined to the accessory glands, the tumor is situated beneath the curve of the urethra, at the summit of the scrotal region between the testicles.

5. Here, also, suppuration is the rule, but the glandular engorgement may, however, proceed to resolution.

6. In its chronic form it constitutes a large tumor, hard, ovoid, knobby, not fluctuating, which occupies the middle

portion of the scrotal region, in the midst of which it remains firm, and which only forms fortuitous adhesions with the testicles and epididymis. The duration may be very long.

7. In its sub-acute form, after a sudden invasion and rapid increase, the inflammatory phenomena all at once cease, and complete resolution is effected in a few days.

8. Active intervention is unnecessary in the last two forms; a moderate antiphlogistic medication suffices and favors the cure, which, however, may take place spontaneously. In the phlegmonous forms, on the contrary, the tumor must be opened very early, even before fluctuation is apparent.

9. Whatever their form and tendency, these urethro-scrotal tumors, although proceeding directly from the canal, are evolved outside of it, and cause it no damage. M. Mauriac has not seen them open into the canal when they were purulent, nor form urethral fistules.—*L'Un. Med.*

REDUCTION OF DISLOCATED FEMUR.—Dr. Samuel Logan, of New Orleans (*Gaillard's Med. Jour.*), re-asserts the plan proposed by him some years ago to reduce, by manipulation, luxations of the femur. He was induced to do this by the recital of the difficulties incurred and the means taken to overcome them in a case by Dr. C. Johnston, of Baltimore. This difficulty, mentioned by Mr. Callender, consists in the slipping of the head of the femur around the rim of the acetabulum during the process of the ordinary manipulative means for reduction, thus lodging the head of the femur either into the thyroid or sciatic-foramen, instead of into the acetabulum. This danger may be obviated, according to Dr. Logan, by making use of the anterior border of the pelvis as a fulcrum by which the head of the femur may be lifted over the rim of the acetabulum. When the thigh is fully flexed upon the abdomen, the limb, at the junction of its middle and upper third, impinges upon that portion of the pelvis just below the anterior superior spine of the ilium. Forced flexion now lifts the head of the femur, and rotation, outward for any form of posterior, and inward for any form of anterior dislocation, will throw the bone into place. An analagous idea has occurred to Dr. George Sutton, of Indiana, who suggested an artificial fulcrum of the arm of an assistant, or a roll of cloth placed in the groin. Both plans resemble the ancient method of placing a pillow between the thighs as a fulcrum for a similar purpose.

PASTEUR'S REPLY TO KOCH.—The *Revue Scientifique* (January 20, 1883), contains Pasteur's reply to Koch's criticism of his methods and results in regard to the micro-organisms of disease and the value of attenuated virus for inoculative purposes. Pasteur's reply is preceded by his critic's remarks translated into French. A summary of Koch's attack was published in the *Journal* of January 18.

It is to be regretted that abstract questions of scientific truth or error can not be divorced from the personalities of discoverers and wrangling over priority, that "such anger should possess celestial minds." The expanse of the unknown is broad enough for all voyagers to pursue their way without collision. Such discussions seem to be the inevitable accompaniment of every discovery, and we should, perhaps, rather regard them in the light of the shifting wind, necessary to clear away fog banks, and make plain all the details of new and hitherto but fitfully illumined surroundings, or, to change the metaphor, they may be regarded as the reagent needed to clear up a cloudy liquid.

We must confess, however, that any advantages to be derived from the discussion by abstract science would have been quite as attainable had it been started by Koch on a somewhat different key, excellent though his brochure was as a mere polemical effort. The form which the dispute has taken is tinged with a certain acrimony, borrowed in part, perhaps, from the difference in nationalities, and in part from the difference in ages.

All will recognize that Pasteur has done some remarkable work—we may even, in the German fashion, call it epoch-making work—in the province of scientific medicine, and he duly invites attention to it in his reply to Koch. If the latter accomplishes as much more in twenty years from the date of his first publication in 1876 he may well congratulate himself. The science and the profession which they serve, and the public whom they benefit, will know how to honor both investigators. To Pasteur we must, probably, accord the full credit of solving the riddle of the nature of the ferment in what were formerly known as zymotic diseases, and of teaching the possibility and developing a method—if not the best method—of the attenuation and inoculation of the virus. Koch himself already acknowledges that the secret of splenic fever has been forced, and he now confesses that Pasteur must be credited with working out the attenuation of the active principle of disease ferments. In these respects at least Pasteur is a genuine "path-breaker," and has enabled Koch to make his own brilliant discovery of the bacillus tuberculosis.

The action of micro-organisms as ferments or tissue destroyers, and the attenuation of their virulence, are to be regarded as far-reaching principles acquired for science. There have been and will be mistakes in regard to the significance of this or that particular microbion, and the manner in which attenuation of a virus is brought about—whether directly by oxygen and temperature, or indirectly by these, and directly by increased activity in the organisms themselves—may have been misinterpreted; generalizations have been at times too hasty. These considerations should not be allowed to obscure the great principles involved.—*Phil. Med. News.*

A NEW REMEDY FOR AN OLD DISEASE—HYDRIODIC ACID IN THE TREATMENT OF ACUTE INFLAMMATORY RHEUMATISM.—Dr. James Craig, of Jersey City, N. J., writes us: "Before using the remedy shortly to be spoken of, I was in the habit of prescribing bicarbonate of potassa, which, as a rule, gave relief as soon as the urine was rendered alkaline, which required about a week or ten days, and during that time opiates had to be given to relieve pain and produce sleep. I have also prescribed salicylic acid, but can not say that I have seen any decided benefit derived from its use [!] Syrup of hydriodic acid, prepared by R. W. Gardner, of New York, is the remedy *par excellence* for this painful and troublesome affection. I have used it for the past two and a half years in bronchitis and scrofula, but its effects have been most prompt in acute inflammatory rheumatism, relieving pain in from twelve to forty-eight hours. I have been called to see patients suffering from this affection, and found them with high fever, joints swollen, and suffering terribly, and on the following day have been agreeably surprised at their rapid improvement, finding them in a great measure free from pain, and fever reduced. Some other cases take a longer time, but I have yet to find one that was not in a comfortable condition within forty-eight hours. The dose I prescribe for adults is from two to three teaspoonfuls every two or three hours, in a wine-glass of water, until relieved; afterward I reduce the dose to one teaspoonful, which may be continued for five or six days, at longer intervals. I was first led to the use of this remedy in prescribing for a patient suffering from bronchitis complicated with rheumatism, its effects being most salutary in the relief of both diseases. I should state that under this mode of treatment the heart has been free from complications; the remedy preventing exudation and organization of plastic material. I more frequently use it now in rheumatism than in bronchitis—in fact, I use it in all cases of acute rheumatism, and must say have always been pleased with its results. I have also prescribed it in chronic rheumatism, but with less effect. I hope that other physicians will give it a fair trial, and find it as useful in their hands as it has been in mine."

THE TREATMENT OF PHAGADENIC ULCERS BY PYROGALLIC ACID.—At a recent meeting of the Academi de Medicine, M. Vidal read a paper on this subject. We take the following abstract from *Le Praticien*, of January 8, 1883: M. Vidal states first, that pyrogallic acid has a great affinity for oxygen, "especially in the presence of an alkaline solution." It has been considered a poison, and when taken by the stomach it has caused the death of a dog; but it is not usually absorbed by the subcutaneous cellular tissue, though M. Vidal has occasionally diluted it in the urine. The preparations which he recommends are an ointment containing 20 per cent. of pyrogallic acid and a powder containing 20 parts of the acid and 80 of starch. The results obtained were very remarkable. In one case, a young man, 23 years of age, enfeebled by excesses, suffered from a phagadenic chancre on the prepuce, and two others on the abdomen. Cauterizations and iodoform had no effect, while, after three dressings with pyrogallic acid, the progress of the ulcer was arrested. M. Vidal cites other cases also which prove the rapidly favorable action of this medicament. In many cases he commences the treatment with pyrogallic acid, and completes it with iodoform or sub-carbonate of iron, which has also given very good results in M. Vidal's hands, and also in M. Terillon's. In one case it was even observed that the ulceration was arrested at these parts of the sore where the acid was applied, and was not arrested elsewhere. The medicine should not be exposed to the air, and the dressing should be changed and applications made twice a day.—*Virginia Medical Monthly.*

LOCAL TREATMENT OF DIPHTHERIA WITH IODOFORM.—*Deutsch. Med. Wochenschrift,* No. 36, 1882. Dr. S. Korach raises his voice in behalf of the use of that panacea of the present day, iodoform, in the treatment of diphtheria. Since July, 1881, he states that all cases of diphtheria which have entered the hospital in Cologne with which he is connected, have been treated by the application of iodoform to the throat and mouth, no other local treatment being employed. The iodoform has been applied in several different ways. When he first commenced its use it was mixed with starch and blown into the throat with a powder blower; then the dry powder was applied with a pencil; subsequently this method was replaced by one in which a solution of iodoform in collodium (one part to ten) was painted on the throat several times a day with a camel's hair pencil; or else a solution consisting of two-fifths parts of iodoform, 25 of sulphuric ether, and 5 of balsam of tolu was applied in a similar way. The results, he states, were sufficiently satisfactory to make a further trial of this mode of treatment desirable.—*Virginia Medical Monthly.*

Erysipelas and Elephantiasis.—In the course of an address on "Diseases Allied to Erysipelas," Mr. Jonathan Hutchinson (*Medical Times and Gazette*), January 6, 1883, makes the assertion that we shall make a definite simplification in our nosology when we class elephantiasis as, in the main, a result of chronic and recurring erysipelas. All observers agree that elephantoid parts are prone to attacks of erysipelas: let us change the mode of expression and say, not that elephantiasis is liable to erysipelas, but that it is in a large degree the result of it. He has seen several cases in which some slight wound of the foot or leg, some sore on the genitals, around which inflammatory œdema has occurred, and from that œdema the elephantoid process takes its origin. He does not deny the influence of climate, race, and diathesis, as predisposing factors. He does not believe in the specificity of erysipelas, contending that it is simply an inflammation affecting the lymphatic spaces, but that it is capable of generating a virus than renders it contagious.—*Med. and Surg. Reporter.*

Written and Unwritten Ethics.—We venture the statement that of the 75,000 practitioners of medicine of this country, not ten per cent. have ever read the Code of Ethics of the American Medical Association, and that not five per cent. even of the ethically correct in their deportment toward both the public and their brother practitioners remember enough of it to be of the slightest possible value to them as a guide to conduct. Certain it is that as a guide to the every-day conduct of the physician, it is as if it did not exist. The gentleman does not require it, and he who is not a gentleman can utilize it to cloak his rascality. One of the greatest sticklers for the code whom we know is notoriously unfair toward his brother practitioners, injuring them by innuendo and robbing them of their patients when he can. Correct medical conduct requires more than can be formulated in words. It requires that rare admixture of regard for others, self-respect, charity, and magnanimity which goes to make up the gentleman. No code can define the constituents of this admixture, and any code which can not define it is useless, and in many respects injurious. Better than such a code is the unwritten and indefinable law which defines a gentleman. If physicians were absolved from the obligations of gentlemen, and required only not to violate the Code of Ethics of the American Medical Association, the profession of medicine would soon cease to be the honorable calling that it is.—*Medical Record.*

PAPILLOMA OF THE BLADDER.—The recurring expulsion of pure blood from the bladder, and its presence in smaller quantity in the urine at short intervals, pain radiating from the perineum to the penis and rectum, and inability to sweep the fundus and sides of the bladder with the beak of a Thompson's searcher, were the prominent points in a case reported by Dr. Joseph Ranschoff, of Cincinnati, in the *Medical News*, February 10, 1883. Cystotomy allowed the finger to come in contact with a fleshy mass (about the size of a peach) situated on the posterior wall of the bladder. It was not movable, and was firmly attached by a broad base. The ecraseur was, therefore, useless. A Volkman's sharp spoon was used to scrape the mass, which came away in shreds and in larger masses. Not until a distinct excavation could be felt was the scraping desisted from. A slow-healing ulcer now took the place of the growth, and it was a year before the man fully recovered.—*Med. and Surg. Reporter.*

THE BACILLUS OF MEASLES.—From the *British Medical Journal*, January 27, 1883, we learn that according to M. Le Bel (Academie des Sciences), the bacillus is found in the urine in the early stages, and disappears with the fever; is a slightly curved, highly refractive rod, moving very slowly; it contains oval spores at one-third its length, in a bag of dead protoplasm, which gradually disappears, the spore showing then a zone of mucilage around it. Another occurrence of spores on the thirty-fifth day was observed in an adult. The bacillus also may be got from the skin at the later stages. M. Le Bel cultivated it, and injected it into a guinea-pig, which, on the tenth day, showed small bacilli in its urine, but did not seem incommoded. The urine in scarlatina and in diphtheria shows a microbacterium and a micrococcus, respectively, both quite different from the "bacillus of measles."—*Med. and Surg. Reporter.*

Perchloride of Iron in Skin Diseases.—Dr. Carsarini (*Rev. Clin. di Bologna*) gives the following results:

1. Perchloride of iron is a most efficacious remedy in purpura hæmorhagica.
2. In the chloro-anæmia accompanying certain skin diseases—as rupia, eczema, impetigo, etc.
3. Its external use is very favorable in scrofulous and syphilitic ulcers.
4. Squamous affections are markedly modified by applications of a liniment of perchloride of iron.
5. It may be used as a lotion, dissolved in two or three parts of water, or as an ointment—one, two or three grains of perchloride of iron to thirty grains of vaseline [cosmoline] or lard. The author has used it in psoriasis, in the form of a pomade—ten grains of iron, thirty grains of lard or glycerine.—*Rev. de Cinc. Med.*

Let Koch and his fellow-workers in this field continue, by absolutely pure cultures, to enlarge the number of infectious diseases having a demonstrable connection with a given microbion, by a more exact interpretation of the processes taking place to develop better methods of attenuation of virus, by greater experience to arrive at surer and safer methods of inoculation. There is work here for the time and energies and ingenuity of all interested in these questions, and there are still absolutely unknown regions in the domain of science for the bolder spirits who must be always in the vanguard, and are impatient of a neighbor however distant. There is no excuse here for the elbowing and crowding attendant upon long occupation.—*Medical and Surgical Journal.*

Book Notices.

THE DISPENSATORY OF THE UNITED STATES OF AMERICA. By Dr. Geo. B. Wood and Dr. Franklin Bache. Fifteenth Edition. Rearranged, thoroughly revised and largely rewritten. With Illustrations. By H. C. Wood, M. D., Member of the National Academy of Science; Professor of Materia Medica and Therapeutics, and of Diseases of the Nervous System, in the University of Pennsylvania. Joseph P. Remington, Ph. G., Professor of Theory and Practice of Pharmacy in the Philadelphia College of Pharmacy; Vice-Chairman of the Committee of Revision and Publication of the "Pharmacopeia of the United States." And Samuel P. Sadtler, Ph. D., F. C. S., Professor of Chemistry in the Philadelphia College of Pharmacy, and of General and Organic Chemistry in the University of Pennsylvania. Large octavo. Pp. 1928. Philadelphia: J. B. Lippincott & Co. Cincinnati: R. Clarke & Co. 1883. Price, $8.00.

This very great work has now reached its *fifteenth* edition. It is stated in the preface that just fifty years have elapsed since Dr. George B. Wood, one of America's most distinguished physicians, penned the preface to the first edition. The copies of the editions previous to this last one, that have been sold, number by the hundreds of thousands. It has a place among the few works published that meet with success; for, wherever the English language is read, this work is found.

This work now resembles somewhat "Webster's Dictionary," in that its first authors having departed from the stage of life, new authors have so far revised and rewritten it as to make it a new work, yet it continues to be called after the names of those who first gave it its existence. It continues to be known as the Dispensatory of Wood and Bache, and will, no doubt, for a long time, be designated as such. Prof. Franklin Bache died in 1864, and, since his decease, the science of chemistry has had a new nomenclature given it, and, besides, vast progress has been made in the way of new discoveries. As a consequence, very little that he contributed to the work would now be available. Dr. George B. Wood has been dead for several years—dying, we believe, soon after the publication of the fourteenth edition, being nearly eighty years old when it was issued. Advanced in years, as he was, he could hardly have apprehended all the changes that had taken place, when he made his last revision. The younger authors who now have the work in charge, it will be readily perceived, have been under the necessity of almost entirely rewriting it in order that it may be abreast of the times, representing the very great progress that has been made in every department which belongs to it to treat, and suitable to meet the wants of physicians and druggists.

But while it is a new work as regards having been almost entirely rewritten, and having new subjects treated, yet there is preserved in it the general plan which characterized previous editions. There is that about it that a copy in hand impresses one that he is handling a familiar work. One of the editors has had the good fortune to have worked through the revisions of three editions under the rigid discipline of Dr. George B. Wood, and to have become thoroughly familiar with his methods, not only of work but also of thought, and with the principles which, in his mind, were essential to the building up of the Dispensatory. As a consequence, with its new authors and new matter, it preserves its identity.

As is known, in the last revision of the "Pharmacopeia," very considerable changes were made in many of the formulas, etc., and the changes, of course, have necessitated parallel alterations in the Dispensatory. The first and second parts have therefore been alphabetically collated and formed into Part I. of the present edition. Part II. consists of what was Part III. in former editions. Part III. of this volume contains a revision of the Appendix of former editions, with various miscellaneous new matter.

It is stated that this revision has occupied most of the spare moments of the editors for three years. In consequence of the addition of the large amount of new matter, it has been found necessary to use smaller type, in order that the work might continue compressed in one volume. The amount of new matter added may be judged from the fact that, whilst in the index of the fourteenth edition there were about eleven thousand references, in the present index there are more than sixteen thousand titles, including in these, however, German and French synonyms, never before indexed. The present volume may very justly be looked upon as a new book, founded upon the old "United States Dispensatory."

The work really needs no recommendation. It is well known throughout the length and breadth of the country. It is not only to be found in the offices of physicians in the great cities, but it is also consulted by medical men in the villages and hamlets. In the doctor's office at the cross-roads in the country we have seen a copy of the "United States Dispensatory." The three gentlemen having charge of the revision of the fifteenth edition are gentlemen of extensive knowledge in materia medica, botany, chemistry, pharmacy, etc. They have long been teachers and writers, and have had long, practical experience. The revision could not have been intrusted to more competent persons. The general expression will be that their task has been well performed.

MANUAL OF GYNECOLOGY. By D. Berry Hart, M. D., F. R. C. P. E., Lecturer on Midwifery and Diseases of Women, School of Medicine, Edinburgh; Late Assistant to Professor of Midwifery, University of Edinburgh, etc. And A. H. Barbour, M. A., B. Sc, M. B., Assistant to the Professor of Midwifery, University of Edinburgh, etc. Two Volumes. With eight plates and 192 woodcuts in the first volume and one lithograph and 210 woodcuts in the second volume. 8vo. About 350 pages in each volume. New York: Wm. Wood & Co.

These two volumes form the January and February numbers, 1883, of Wood's "Library of Standard Medical Authors." Bound in red morocco, they present a very handsome appearance and will ornament the bookcase.

The authors state that in writing this manual, as they term it, they have tried to keep before their eyes the great principle that the anatomy, physiology and pathology of the pelvic organs form the foundation of good clinical work; and that, as students, they felt the want of a text-book based on this principle and embodying the most recent views from the various literatures, instead of giving those of one school. This want, they say, they have endeavored to supply.

The work is well adapted for students. The anatomy of the pelvic organs is described at the outset—the descriptions having reference to the descriptions of the various diseases to which the organs are liable and of which it is proposed to treat. Having, then, laid a correct and thorough anatomical foundation, the physiology and pathology of the parts are set forth in as lucid a manner as the knowledge at the present time will admit, illustrating wherever it has seemed that an illustration would assist in imparting a correct notion. The way thus made clear by affording the preliminary knowledge necessary for their understanding, the various diseases are taken up and described at length. It has seemed to be the aim of the authors to treat each disorder in such a way as to fully set forth all its leading features and make its recognition easy. That they have succeeded, we think, will be generally conceded.

The method of treatment of the diseases, with reference to their relief, which is described in the work, will be found to be such as is generally recommended by the most eminent gynecologists. We have reference here to that treatment which is more or less established or empirical in its nature. In consequence of the extended views, however, which are presented of all the various shades of thought, the student and practitioner have full opportunity to arrange their treatment to harmonize with such theories as they most approve, when pathology does not afford sufficient light to reason from cause to effect.

The great value of these first two numbers of the series of twelve volumes of Wood's "*Library of Standard Medical Authors*," for 1883, gives assurance that the remaining ones will also be of superior merit, and that the completed library of the year will be well worth possessing.

A MANUAL OF AUSCULTATION AND PERCUSSION; Embracing the Physical Diagnosis of Diseases of the Lungs and Heart, and of Thoracic Aneurism. By Austin Flint, M. D., Professor of the Principles and Practice of Medicine and of Clinical Medicine in the Bellevue Hospital Medical College, etc. Third Edition Revised. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: R. Clarke & Co. 12mo., pp. 242. Price $1.63.

Professor Flint is so well known throughout this country by his Practice of Medicine and other writings on medical subjects that no work of his needs any commendation. A gentleman known to be of so much learning in medicine, so great ability, large experience, and so long a teacher as he, and having been, for many years, an acceptable contributor to the literature of the profession, will not be under the necessity, on having a work published, to wait for it to be examined and its merits indorsed before having it accepted by the profession. The profession, in case of Prof. Flint, will accept a work from the fact that he is the author of it. It could not be possible that he would produce any other than a meritorious work possessing, as he does, the ability and learning necessary, and having already been the author of a number of standard works.

This work has the merit of being small and easily portable, while, at the same time, it is sufficiently large to fully describe, in a satisfactory manner, all the mysteries of auscultation and percussion.

An evidence of its acceptability to students and practitioners is the fact that it has reached a third edition. It is but two years ago that the second edition was issued. This edition has been revised and improved in a number of particulars. Its scope is confined exclusively to auscultation and percussion, and does not treat of other modes of physical examination. This is undoubtedly a merit, especially in a work for students, who do not have their minds, in consequence, confused by any collateral subjects.

STUDENT'S GUIDE TO DISEASES OF THE EYE. By Edward Nettleship, F. R. C. S. Ophthalmic Surgeon to St. Thomas' Hospital, etc. Second American from the Second Revised and Enlarged English Edition. With a Chapter on Examination for Color Perception. By Wm. Thompson, M. D., Professor of Ophthalmology in the Jefferson Medical College. 12mo., pp. 416. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: R. Clarke & Co. Price $2.00.

This is a work well known both in this country and in England, where it was written. Having been prepared especially for the use of students, it is better suited for them than any work with which we are acquainted. Exceedingly plain in its descriptions, without presuming that the reader is learned in medicine, it is a very satisfactory companion of the student while in attendance upon Lectures. It will be found of great assistance in preparing for examinations.

The American publishers announce that they have spared no pains to place the work, in every particular, upon a level with the latest developments of the specialty of which it treats, and bears evidence of the fact. Dr. Wm. Thompson, who is well known for his investigations upon the subject, has added a chapter on Color Blindness. A number of defective illustrations that occurred in the previous edition have been removed, and about fifty new ones have been added. The paper, type and binding are all superior, and reflect credit upon the publishers.

CURABILITY OF CONSUMPTION. Illustrated. By Wade Minor Logan, M. D. Cincinnati, O.

This is a revised reprint of Dr. Logan's essay on the above subject, published last May in the MEDICAL NEWS, to which is added an Appendix, containing some practical hints on hygiene, and a number of alimentary preparations for the sick, with a tabulated exhibit of the comparative digestibility of various articles of food. The author has long made a special study of this class of diseases, as will occur to those who remember his earlier medical writings, a dozen or more years ago, which, at the time, created much interest on both sides of the Atlantic. We are further pleased to announce that presently he will favor us with a series of articles to be entitled "Some Observations upon the Treatment of Phthisis Pulmonalis," which, we anticipate, will be of rare interest.

Editorial.

LATIN LITERATURE.*—Being in receipt of the work whose title is given below, we feel called upon to notice it. Reviews of works upon some department of medicine, or the collateral sciences, seem more appropriate in a medical journal than the review of a work devoted to literature; but the profession of medicine is one of the learned professions, and the members of it are generally persons of learning, who have studied literature and continue to take the highest enjoyment in its cultivation. What physician is there who, having poured over the pages of Cicero, Cæsar, Livy, Quintillian, Virgil, Horace, Ovid, Martial, Lucretius, etc., would not be interested in reading, and even studying, a connected, intelligent and philosophical history of Latin literature from its earliest period to the time when the Latin language ceased to be a living language, or no longer formed the treasury of the world's learning? We feel very sure that the history of the literature of no language presents so many points of interest as the history of the literature of the Latin language; and that not only to the classical scholar, but to all educated, cultivated persons, the horizon of whose thoughts and feelings extends beyond themselves and their immediate surroundings. Surely our modern languages have nothing belonging to their literature to beget the same amount of interest in their histories. It has been but a century or so since any of them has been made the medium of history, science, poetry or literature of any kind. So late as the times of Erasmus, Sir Isaac Newton, Calvin, Luther, etc., all scholars wrote in Latin. Not merely theologians, but physicians, legal men and scientists recorded in the Latin language whatever they felt called upon to write and publish. Latin, dating back in its origin to almost prehistoric times, was spoken by the great men, philosophers, historians, poets and orators before the Christian era, and continued to be the living spoken language of nearly the whole civilized world for several centuries afterwards—the language not only of Virgil and Tacitus, and the worshipers of Jupiter, Mars and Venus, but also the Apostles spoke it, the early Christians, martyrs and confessors. There is so much connected with it that is dear and sacred, that there never can be a language that will have so much of interest attached to it—even omitting the consideration that many of the principal modern languages had their origin in it.

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* "A History of Latin Literature from Ennius to Boethius." By George Augustus Simcox, M. A., Fellow of Queen's College, Oxford. In two volumes. 12mo. New York: Harper & Brothers. Cincinnati: Robert Clarke & Co. 1883.

The traditional account of the origin of literature at Rome accepted by the Romans themselves, is that it followed from contact with Greece. Cicero frequently mentions the fact that literature was cultivated in Greece long before it was at Rome. In his *Tusculan Disputations*, Lib. l., cap. 1, he says: "*Doctrina Græcia nos, et omni literatum genere superabat,*" which translated freely is as follows: "In learning indeed, and all kinds of literature, Greece has excelled us, and it was easy to do so when there was no competition—since Homer and Hesiod lived before the foundation of Rome, and Archilochus (Livius Andronicus) was a contemporary of Romulus." But contemporary with his time, Cicero was not willing to admit that the Greek writers, in any way, excelled those of his country, and in eloquence he regarded the Roman orators superior. From the Augustan period and during the time what is termed the Silver Age lasted, there flourished at Rome such writers as Livy, Tacitus, Virgil, Pliny, and others of the highest order. From this time the Latin language attained to a pre-eminent position and became the language of the thinkers of the world. Greek was still employed by some, but its rival held the chief place. As regards the superior excellence of the Latin language there has never been any difference of opinion among the learned. Says Mr. Crutwell: "The utility of Latin literature may be sought in the practical standard of its thought, and in the almost faultless correctness of its composition. On the former there is no need to enlarge, for it has always been amply recognized. The latter excellence fits it above all for an educational use. There is probably no language which in this respect comes near to it. The Romans have been called with justice a nation of grammarians. The greatest commanders and statesmen did not disdain to analyze the syntax and fix the spelling of the language. From the outset of Roman literature a knowledge of scientific grammar prevailed. Hence the act of composition and the knowledge of its theory went hand in hand."

In the work before us the author states that his original aim in writing was to do something toward making Latin literature intelligible and interesting, as a whole, to the cultivated laity, who might like to realize its literary worth, whether they read Latin or no. We think he has been highly successful, for no intelligent person can take up the work and glance through it without becoming inspired with a desire to read it carefully. First speaking of Latium and the Alban hills and their early inhabitants, the Aryans, he mentions a number of theories in regard to the origin and language of these people, and the probability of these and other tribes having sprung from the Greeks. But he does not tarry long in unraveling the mysteries which envelop the first settlers of the Italian peninsula, but hastens to the consideration of the subject which he has set out to treat and to give a history. He stops, for a while, in a review of the Latin language and in the study of its peculiarities, and, in doing this, he briefly compares it with the Greek. "Latin literature," he says, "is eminently classical in the primitive sense of the word: its representative writers fall into fixed 'classes;' it is a literature of fixed standards, fit to become the foundation of esthetic tradition. Its generality, its clearness, its finish, and its dignity, are all elements which give it a permanent educational value, and make it interesting to races and generations very different from those which originated it. English literature is hardly likely to fill the same place in the training of the communities which owe their civilization to England as Latin literature has filled in the training of the communities which owe their civilization to Rome." He even regards Latin more classical than Greek.

Beginning with Ennius, or father Ennius, as he terms him, he gives a succinct and very interesting history of each one of the Latin writers down to Cassiodorus, who died A. D. 569. Ennius' birth is mentioned as having occurred 239 B. C.; so that it will be perceived the biographical sketches cover a period of several centuries. In regard to the merits of the criticisms of the various Latin writers, we have not the space or the time to enter upon anything like a proper review. Generally they are very good, although we can not subscribe to the correctness of all of them. Some seem to be unnecessarily lengthy, and give more importance to some writers than they deserve, and less to others. In the analysis of the character and the writings of St. Jerome, one of the Christian fathers, we could not help feeling disappointed after our perusal of it; for it occurred to us that justice was not done to this great and learned Latin Christian writer, who translated a large portion of the Hebrew Bible into Latin, and revised the old Latin Vulgate.

All lovers of literature will undoubtedly feel greatly obliged to Mr. Simcox for his highly interesting and scholarly History of Latin Literature. To those who do not specially devote themselves to the cultivation of Latin literature, and do not read Latin, it will afford a large amount of interesting and valuable information that it would be difficult to find elsewhere. The history of a language gives a better knowledge and permits of a more thorough appreciation of the people who speak it than a history of their government, their rulers, and wars, etc. As it is a much larger work than Mr. Crutwell's History of Roman Literature, it contains much more information. The latter treats almost exclusively of the literature of the purely classical writers of the Latin language, and is therefore mainly limited to those of the Gold and Silver Ages; but Mr. Simcox does not stop with his History until Latin has ceased to be spoken by the people and has retired into the cloister, to be mumbled by the priests in their worship; and here, in the cloister, were many of the most brilliant works of antiquity destroyed by ignorant superstitious priests, inflicting a loss upon the world that can not be conceived of—a loss greater than that of cities; for their loss the world could recover from, while it can not get back the light of knowledge that has gone out. But, fortunately, sufficient of the writings of the old philosophers remained, by which, when they began to be studied, to stimulate the human mind into action and afford it material for thought and enable it to throw off the pall of ignorance that shrouded it during the dark ages.

SANITARY INSPECTION OF SCHOOLS.—We have just received a copy of a bill amending Section 2,135 of the Revised Statutes of Ohio, so as to make the sanitary inspection of all schools in that commonwealth obligatory. The added clause is as follows: "And the said Board [of Health] is hereby required to inspect semi-annually, and oftener if in the judgment of the Board it shall be deemed necessary, the sanitary condition of all schools and school-buildings within the limits of the corporation."

This bill contains, by implication, all the powers which were more explicitly expressed in a measure presented last winter, but which failed to pass. It applies to all schools, whether public, private, or parochial, and being thus a general measure, its advantages will soon be broadly tested.

Ohio is to be congratulated upon the progressive step, due to an enlightened public sentiment on the subject of health and education; and we commend the untiring efforts of Dr. Tuckerman and his coadjutors in behalf of the results just accomplished.

The subject of the health of school children is more than ever the theme of discussion, not only here, but in other lands. It has borne rich fruit in the city of Brussels, where an excellent system of sanitary inspection has already been established.

As recently as January last, before the Annual Congress held under the auspices of the Educational Institute of Scotland, at Aberdeen, Dr. Farquharson, M. P., in a forcible address exposed the evils prevalent in the national schools, by which the health of children of tender years is imperiled, and pointed out the remedies to be adopted. He strongly advocated the appointment of medical inspectors in schools, who should superintend the construction of all school buildings, regulate their ventilation, proper heating and lighting, and who should also have some voice in deciding the amount of instruction suitable for different pupils. His views met with general approval at the Congress, and will ultimately lead to good results. It is to be hoped that this public discussion of the subject will be continued until a rational system of protecting the health of the young while being educated shall have been everywhere adopted.

A mortifying contrast is, however, presented to this action in the conduct of the same legislative body when a bill making vaccination compulsory was introduced by Mr. Ellsworth. "There was a pile of fun in the House," says a special Columbus (O.) newspaper correspondent, when the bill was introduced. "Motions to refer to the committees on ditches, drains, and water courses, printing, and federal relations, were made and lost. One member moved that the bill be made local, and apply to Ellsworth and his constituents; and another that it apply to persons over 100 years of age," while the bill was finally postponed indefinitely.

That a body of men elected, presumably on account of their intelligence, by the people to represent them in enacting laws for the public good, should treat in this manner any measure seriously proposed, whether it be expedient or not, is disgraceful to those taking part in the puerile exhibition, and humiliating to their intelligent constituents. Let us hope that the latter will mark the offenders, and discriminate accordingly at the next election.—*Phil. Med. News.*

SCOPES.—In a recent issue of the *College and Clinical Record*, there is a description of a medical consultation as it will be in the future, which, as we think it will interest our readers, we copy. Previous to this description the editor remarks upon the variety of instrumental methods of diagnosis terminating in the suffix of "*scope*." There is, for instance, the otoscope, rhinoscope, enteroscope, cystoscope, gastroscope, microscope, etc. The editor rightly says that one can not but wonder what the womb of the future may have in store for the diagnostician of those days.

But here is the description of the consultation which will be held sometime in the future:

"Madam is in her boudoir, reclining on the sofa, in expectation of her medical attendants. A drag drives up, from which alight two servants with heavy bags, who assist four doctors to descend. The fraternity is announced, and, followed by the servants, enters the room. The bags are deposited; the servitors withdraw, and after the exchange of a few remarks the examination begins. Dr. Ready, the junior practitioner, conducts the first inquiries, makes the ordinary investigations of the different organs, and before finishing pulls out of his pocket a tablet containing the volumetric examination of every fluid in the body, completed since the last visit. This is looked at by all. Dr. Reckoner then takes traces of the movements of the heart, of the pulse, of the action of the muscles, records the velocity of their contraction, and estimates the amount of nerve-supply, showing the diagrams and figures to the patient, who inspects them with the look of a connoisseur. Dr. Eyeman now applies the improved ophthalmoscope, which photographs as well as is used to see by. Again Madam shows active interest, and declares that the picture is very pretty. A mysterious nodding and whispering takes place. There has been indigestion, with pain at the pit of the stomach—can there be anything wrong with the blood-vessels there? Dr. Magnet, who is a very accomplished physicist, steps forward. 'If you will permit me, I will make you transparent.' And by means of a modified, portable Ruhmkorff coil, and an instrument with lenses dexterously passed into the stomach, the fair patient is really rendered transparent. The examination is completed; fortunately no serious lesions exist, and a consultation held in the next room results in the advice to take a few glasses of soda water and a daily ride on horseback." A medical *ridiculus mus!*

THE PATHOLOGY AND MORBID ANATOMY OF TUBERCLE.—This is the title printed in pamphlet form of a paper read by Dr. N. Senn, of Milwaukee, before the State Medical Society of Wisconsin. The Doctor urges that the so-called scrofulous affections of bone, joints, and lymphatic glands, are tubercular in structure and behavior, and constitute only a link in the chain of development of tuberculosis, as generally understood. He states that when these organs are primarily involved, as is usually the case, it is an indication that the process has not become general, and that by early and well directed treatment, its extension to more important and vital organs might be prevented.

As a matter of great interest, although not entirely new, we quote, in the language of the author, the following proposition:

"In the light of recent experiments it must be admitted that tubercle, as such, is never the product of simple inflammation: inflammation, however, may so alter the properties of the tissues as to furnish a favorable soil for the development of tubercle. It is also a well known fact that the presence of tubercle will, unless it has become latent, excite inflammation of a chronic character, which is modified in its tendencies by the tubercular process. The origin and growth of tubercle is attended by cell proliferation within, and in the immediate vicinity of capillary vessels resembling ordinary inflammation; but the cause of the process and the future fate of the exudation material is modified by the tubercular virus imparting to the tubercle nodule specific qualities found in no other product of inflammation or neoplasm. Only cheesy material, the result of an antecedent tubercular deposit, can give rise to diffuse miliary tuberculosis. All other inflammatory products can only serve as a fertile soil for the localization of tubercle, thus furnishing only one of the conditions for tuberculosis. Inflammation around the tubercle nodule favors local progression, but is only one of the consequences of local infection."

THE "ALLIGATOR BOY" SCIENTIFICALLY CONSIDERED.—Medical students sat in tiers in the lecture-room of the College of Physicians and Surgeons yesterday afternoon, jotting down notes, while Prof. George Henry Fox talked about the "alligator boy," who had been brought to the college from the Globe Dime Museum, to illustrate a lecture on skin diseases.

"This child," said Prof. Fox, "is suffering from the disease called ichthyosis, and his skin is an unusual illustration of the effect of congenital manutrition. His limbs have never been used at all, and his skin shows the tendency to break into scales all over the body. These patches are horny, and resemble an alligator skin more than anything else. Usually, in cases of ichthyosis, this peculiarity affects the extremities of the sufferer only, but in this instance the scales cover the back and the chest. The child never perspires. Rubbing sweet oil or glycerine on it will soften his skin, but as soon as the oily matter dries the skin will resume its hard and scaly appearance. Cases even more advanced in a similar disease than this subject were exhibited in England some years ago as the 'porcupine men.'"—*New York Sun.*

EXTREME MINUTENESS.—When vision is not aided by any magnifying process, there is a point of minuteness, as all know, when an object will make no impression upon the retina, and will not be seen by the unaided eye. But when the object is viewed by means of a microscope it becomes visible. There is a question, however, that remains unanswered, which is, whether any object may become so attenuated that it can not be made visible by any means. Not many years ago, less probably than twenty-five, there were lines that could not be resolved by any microscopic lenses then in existence, which can be exhibited now without any difficulty; but, at that time, makers of lenses had not attained to the skill of making them with large angles of aperture, but now they are made with the highest angle that is possible, and, consequently, the capacity of such objectives can only be increased by greater skill in their manufacture. But the limit of angle of aperture having been reached—no opportunity remaining of increasing capacity in that direction—is it not reasonable to suppose, that, with present appliances, no greater skill in manufacture can be expected? Sir Royston Pigott, recently, at a meeting of the R. M. S., stated that he had seen globules of mercury, made by smashing a minute particle of mercury with a watch-spring, less than $\frac{1}{100}$ of $\frac{1}{10000}$ of an inch, or less than the millionth of an inch. Another member replied that he was not aware that there is any limit of *visibility* in the microscope other than that imposed by the sensibility of the observer's retina, the correction of the objective, and the illumination.

The question is an interesting one and we may recur to it again.

TRICHINÆ.—Mr. Frank S. Billings, veterinary surgeon, contributes two valuable articles to the New York *Medical Journal* upon "Trichiniasis in its Relations to the Public Health and National Economy." His method is to take a stump of the pillars of the diaphragm and examine their sections. Of the 8,773 hogs examined 345 were found infected, that is one in every twenty-five. This result, says Mr. Billings, does not certainly support the words of the State Department, that there are "less trichinæ in American pork than that of any other country." Comments are made upon the manner in which some investigations have been made. In one case an objective capable of magnifying two hundred diameters was used, and the pieces examined were separated into shreds. Mr. Billings very pertinently remarks that as the length of the female trichina is one-eighth of an inch, he should expect, when he did happen to find one, to find a boa constrictor. In the second place, it is well known that the parasite is most easily recognized by using crushed specimens. In conclusion he says:

"Some unknown living thing lodges trichinæ before they enter the porcine organism. The questions are: What is it? Where is it? What are its modes of life? These things discovered, and they must be, an end can be put to porcine trichiniasis, and hence to human. Bluffing the attempt to write down an existing fact will only end in ridicule to this Government; research, untiring and unceasing, is the only 'cure;' cost what it will, it will pay far better than governmental lies. American hogs are much more trichinous than European."—*Western Lancet.*

ANTIDOTE OF CARBOLIC ACID.—The *Medical Times* says that carbolic acid has produced nearly two hundred fatal recorded accidents since its introduction into modern medicine, and that it therefore occupies a first place among poisons. The frequency of its taking, it observes, and the fact that it is a universal poison, killing heart, nerve centre, and indeed all forms of protoplasm, lend importance to the question of its antidote.

Some years since, it is stated, Baumann and Hueter, finding that the sulphates disappear from the urine during carbolic acid poisoning, suggested the employment of soluble sulphates, or their acid, as antidotes, and experimentally showed their value. Subsequently Dr. David Cerna, in an elaborate series of experiments made in the laboratory of the Medical Department of the University, found that the powers of the sulphates had in no respect been exaggerated. The peculiarity of the antidote is that it seems to be equally effective after as before the absorption of the poison. This relationship between carbolic acid and the sulphates is certainly curious, as well as important, and is worth keeping in mind.

DEATH OF SURGEON GENERAL BARNES.—It gives us much pain to announce the decease of Joseph K. Barnes, M. D., Brevet Major General and Brigadier General of the United States Army (retired), and late Surgeon General of the Army. He died in Washington City, at 2 A. M., April 5th. All who knew him will indorse the statement made in the order, issued from the headquarters of the army, in regard to his decease:

"He was eminent, skillful and successful in his profession as surgeon and physician, and distinguished for great administrative ability, as the head of the Medical Department. He inaugurated the medical history of the war. He founded the Medical Museum, and brought the Medical Department to the highest state of efficiency. At the time of the assassination of President Lincoln, and the attempted assassination of Secretary Seward, he attended the death-bed of the one and administered to the successful restoration of the other. So during the long illness of President Garfield he was one of the distinguished surgeons who for days and nights served with devoted duty in the sick chamber of the dying President. During these long protracted hours of anxiety and care his own health gave way, and from that moment to the time of his death he was an invalid."

THE ASSOCIATION OF AMERICAN MEDICAL EDITORS will hold its next annual meeting in the city of Cleveland, Ohio, simultaneously with that of the American Medical Association, on June 5 and 6, 1883. The President, Dr. N. S. Davis, of Chicago, recently selected as editor of the forthcoming weekly *Journal of the American Medical Association*, will deliver an address on "The Present Status and Tendencies of the Medical Profession and Medical Journalism." Dr. Marey will address the meeting on "Journalism Devoted to the Protection and Concentration of Medical and Surgical Science in Special Departments." Other interesting papers and addresses will be read at the sessions, which are to be between those of the American Medical Association, and all physicians present at either gathering are invited to take part in the proceedings and discussions. Dr. John V. Shoemaker, of 1031 Walnut Street, Philadelphia, is Secretary.

WE are in receipt of the *Fifth Biennial Report of the Trustees, Superintendent and Treasurer of the Illinois Southern Hospital for the Insane*, at Anna, Illinois, H. Wardner, M. D., Superintendent, October 1, 1882. We learn that at the beginning of the year there were 474 inmates—249 males and 225 females. There were remaining at the close of the year 500—263 males and 237 females. The causes of insanity set down are those we find usually recorded in similar reports, which are the causes which the patients' ignorant friends guess at. We see that *disappointment in love* is stated as the cause of the insanity with one male and one female. We hope they may recover, and form new attachments.

From the Report we judge that the Institution is well managed, and that the intelligent Superintendent is doing a good work. From remarks in the Report we have reason to believe that the Trustees in selecting Dr. W. for the position of Superintendent made a wise selection.

More About the Electric Light in Surgery.—From the *British Medical Journal*, January 27, 1883, we learn that the incandescent electric light has been lately adopted by a few surgeons for operations about the mouth, and that dentists are likely to find it exceedingly useful. The globe containing the incandescent material is enclosed in another globe, and mounted on a handle of suitable form; after its introduction into the mouth, the circuit can be closed, and the light immediately obtained. The light is extremely pure and clear, and all shadows are cast down and away from the operator. It is calculated to be exceedingly useful for operations for cleft palate. The amount of electricity required to be stored is not great, as the light is only maintained for the time that the operator actually requires; and Faure's accumulators, which are already a commercial product, are well adapted for the purpose.—*Med. and Surg. Reporter.*

Cincinnati Industrial Exposition.—Our readers should keep in mind that the *Eleventh Cincinnati Industrial Exposition* opens September 5th and closes October 6th. There will be a wonderful display of manufactures, arts, inventions, and products. In fact it will be recognized as a grand National exhibition of science and art. As arrangements will be made with every railroad in the United States to carry visitors to and from it, we hope to see all of our friends from all parts of the country during the month of the continuance of the Exposition.

Medical School for Women.—We learn from the *Canadian Practitioner* that there will be probably organized soon a medical school for women in Toronto. The most serious difficulty in the way will be *want of sufficient money;* but as a number of both gentlemen and ladies of means have signified a willingness to contribute, that trouble may be removed.

Maryland Medical Journal.—We have received information from the editors and publishers, that this journal; published at Baltimore, beginning with the first number of the tenth volume for May 3rd, will be issued as a weekly publication. Each number will contain 16 pages, double column. The *Journal* is edited by Thos. A. Ashby, M. D., and Eugene F. Cordell, M. D. As a monthly publication, we received no exchange that we held in higher estimation, and, as a weekly, we hope, and have no doubt, it will continue to hold a very high position among the best medical journals of the country.

Dr. D. W. Cathell, of Baltimore, has issued a third edition of his most interesting and valuable little work, entitled "The Physician Himself." Some changes have been made in it as respects the description how a physician's office should be furnished, which we think are improvements. We hope this edition will meet with as ready sale as the previous ones, for it merits it.

An Instantaneous Light.—Such in a word is the unique apparatus on exhibition at the rooms of the Portable Electric Light Co., 22 Water Street, Boston. It occupies the space of only five square inches and weighs but five pounds, and can be carried with ease. The light, or more properly lighter, requires no extra power, wires or connections, and is so constructed that any part can be replaced at small cost. The chemicals are placed in a glass retort; a carbon and zinc apparatus, with a spiral platinum attachment, is then adjusted so as to form a battery, and the light is ready. The pressure on a little knob produces an electric current by which the spiral of platinum is heated to incandescence. The Portable Electric Light Company was recently incorporated, with a capital of $100,000, under the laws of Massachusetts. The usefulness of the apparatus and the low price ($5) will no doubt result in its general adoption. Some of the prominent business men of the State are identified with this enterprise. In addition to its use as a lighter, the apparatus can also be used in connection with a burglar-alarm and galvanic battery.—*Boston Transcript, Dec.* 30.

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Original Contributions.

Tobacco; Its Effects Upon the System.

BY W. R. AMICK, M. D.,
Professor of Ophthalmology and Otology in the Cincinnati College of Medicine and Surgery.
Professor of Physiology in the Cincinnati Training School for Nurses.

Abstract of a lecture delivered before the class.

TOBACCO belongs to the same category and is a genus of the nightshade family. The name of this agent is said to commemorate that of Jean Nicot, a French Embassador to Portugal, who, in 1560, sent the seed from Lisbon to France. At that time it was supposed to be a medicinal plant in Portugal. There is considerable doubt as to the origin of the name, whether it was derived from that of a small island or, more probably, from Tobago, or Tobaco, the term in Santa Domingo for the tube or conducting pipe through which the smoke from the burning leaves was drawn or inhaled, for the smoke was taken with inspiration into the lungs and exhaled through the nostrils. For this purpose they used very small pipes, somewhat like the Chinese opium pipe of the present day. These pipes were denominated and are now known to antiquarians as Elfin pipes.

Tobacco was first recommended and used for its medicinal virtues, which were, however, greatly exaggerated; but it soon changed and became an article of luxury. The evils arising from its use were recognized at this early date, and, in some places, the severest punishment meted out to the offender in order that the vice, as it was considered, might be suppressed. For instance, the Popes Corban VIII. and Innocent XI. "fulminated against it the thunders of the Church," and denounced it as an agent productive of harm. The priests and Sultans of Turkey declared that smoking this obnoxious weed was a crime. Sultan Amurd IV. decreed the punishment for using this agent, with the most torturing and cruel kinds of death. The pipes of the smokers were taken from them and then thrust through their noses in Turkey and in Russia in the earlier part of the seventeenth century, and in other cases the unfortunate victim paid the penalty by having his nose cut off.

King James I. of England issued what he was pleased to denominate a *Counterblast to Tobacco*, in which he described its use as a "custom loathsome to the eye, hateful to the nose, harmful to the brain, dangerous to the lungs, and, in the black, stinking fumes thereof, nearest resembling the horrible stygian smoke of the pit that is bottomless."

The Styx is said to be a waterfall in Greece, descending from a lofty rock into a deep cavern or basin, the water pouring down in quite a torrent. The water was supposed by the Greeks to be poisonous, not possessing a very savory odor, and that everything was destroyed that was thrown into it. There was a report that Alexander the Great was poisoned by the waters of the Styx.

In Greek mythology, the Styx was represented as a river of hell, around which it flowed nine times. The gods held the waters in such veneration that to swear by them was reckoned the most binding oath that could be taken. Should they break such an oath, Jupiter compelled them to drink of the waters of this river, which would lull them for a whole year into a comatose condition or one of senseless stupidity. The Styx was a river over which departed shades had to pass before they could enjoy their reward in the infernal regions, and it was the office of Charon to ferry them over.

Mythological writers have stated that the Egyptians framed both this and other fables relating to the dead from certain customs peculiar to their country. Dead bodies were cast into this cavern, and evil spirits received their compensation by being placed in this cave with a brimstone fire surrounding them. From this combination, the odor or smoke arising would not be considered very pleasant or agreeable, but the reverse in every sense of the term—a horrible stench; yet King James says that the smoke from tobacco is very like unto the above.

Tobacco is used in three forms, smoking, chewing and snuffing. Plugging or stopping the nostrils with quids of tobacco was practiced at one time, but now is about discontinued. The natural suggestion to most minds is that it would have been the better policy if this practice had never been inaugurated. Dipping snuff, that exists to a considerable extent in this country at the present time, but was more extensively practiced a few years ago in the southern portion, is simply on the same principle as chewing.

Although tobacco did not become prevalent in the East until the seventeenth century, yet the Turks and Persians are now the greatest smokers in the world. In India, all classes and both sexes smoke. In China, the practice, which is probably much more ancient, is universal, and girls from the ages of eight or nine years upward wear as an appendage or ornament to their dress a small silken or satin pocket, in which they carry their pipe and tobacco.

The earlier settlers in Virginia engaged in the cultivation of tobacco, as it was a saleable commodity in England. But as early as 1616, when the colony only numbered 351 persons, a provision was made by law against neglect of food crops for the purpose of raising this article.

It has been discovered by analysis that lime is sometimes mixed with snuff to increase the dryness, and those brands that are prepared in this manner have a very injurious effect upon the mucous membrane of the nose. Snuff is more liable to adulteration than any other form of tobacco, and we find that salt, ochre, pearlash, earthy matters, lead, powdered glass, chickory, sawdust and various other miscellaneous ingredients are used, some for the purpose of drying, some to improve the color, and others are added so that the financial part shall not be neglected.

Probably the first analysis of tobacco was made by Vanquelin in 1809, who detected a volatile acrid principle, which, however, was not isolated until 1828 by Passelt and Reiman as a colorless oily liquid, which was called nicotine or nicotia, and this is the constituent upon which the active properties of the plant chiefly depend. In smoking we have a larger amount of nicotine produced than in chewing, as it appears to be formed in larger quantities by the act of combustion. This is a source of irritation to the mucous membrane of the throat, which is more marked than when the drug is used in any other form; besides, we have the additional effect of both the heat and the smoke. The quantity of nicotia increases as the cigar is consumed. There is a much larger amount in the short stump than in the entire cigar before it is lighted. The oftener the cigar is allowed to go out and then be relighted, the greater the quantity of nicotine.

Nicotia is not only a local irritant, but, if introduced into the system in sufficient quantities, would destroy life. Taylor says that it is the poisonous alkaloid of tobacco, and is as deadly in its action as prussic acid, destroying, even when given in small doses, with great rapidity. It resembles prussic acid from the fact that it is a compound of hydrogen, nitrogen and carbon without oxygen. By experiment, it was found that, in fifteen seconds after a drop had been given to a rabbit, it was unable to stand, it had opisthotonic convulsions, and in three and one-half minutes was dead. He cites the case in which the Count and Countess Bocarme were charged with the murder of the Countess' brother by administering to him nicotine while he was dining with them. The poison was forcibly administered. The deceased did not live more than five minutes after it was introduced into the system. The possession of the poison, an evidence, fixed the crime on the Count, and he was condemned and executed. "A man swallowed a small quantity of nicotine from a bottle, and almost immediately afterward was seen in the act of falling to the floor. He was carried into an adjoining room, but before this could be reached he was dead. It is very evident that nicotia is a deadly poison, and when taken in a lethal dose frequently resembles prussic acid in its action."

This substance, being mixed with the saliva, is not only brought into contact with the mucous membrane of the mouth and pharynx, but is carried by respiration down into the trachea and lungs, and up into the nasal cavities. The movements of the soft palate assist in conveying the saliva into the post-nasal passages. In this manner it is carried around over the pendulous palate, and is brought in contact with the mouths of the eustachian tubes. Then we may have it pass up through these tubes by capillary attraction to the cavity of the tympanum. When we have a foreign substance in this cavity, and especially if that substance contains an irritating principle, we can easily understand the result—a congestion of the tympanic mucous membrane, with a corresponding amount of impairment of hearing. Here, then, we would have two effects produced, the dilated vessels from its local action and obstruction from its presence.

We may have the hearing impaired by the nicotine being absorbed, taken into the circulation, and brought in contact with the brain and nerves.

By some it has been supposed that the nerves that are distributed to the mucous membrane of the mouth receive and transmit the narcotic and other effects of the nicotia to the brain, and that in this manner the effect is produced upon the system. But the amount that is taken into the circulation does not depend entirely upon that which is absorbed by the mucous membrane of the mouth and pharynx. There is quite a quantity that is taken into the stomach and is introduced into the circulatory system with the food.

It does not make any difference, so far as the ultimate result is concerned, whether it has been introduced into the system by snuffing, smoking, chewing or dipping. As we have a larger amount of nicotine produced by combustion, then we would naturally expect to have a more decided effect produced upon the nervous system by smoking, with a stronger tendency to an impairment of the function in some of the organs of special sense.

The question naturally presents itself, how does tobacco affect the nervous system? Does it produce a congestion of the bloodvessels of the various organs or is an anæmic condition the result? If we have a congestion of the retina or membranous labyrinth, is it local or do we have it as the result of congestion of the base of the brain? Or, is there yet another element, one which is peculiar to the nervous system itself, acting independently of the circulatory system so far as congestion is concerned?

The poisonous products may be taken into the circulation and carried by the arterial system to all parts of the body. The brain with its branches, the nerves, depend upon the blood for their vitality, and they receive, in addition, a certain amount of an irritant, which, instead of assisting them to carry on their function, is gradually reducing their power. This reduction of nervous power or force generally becomes manifest in some of the organs of special sense. At the same time that this toxic principle is an irritant, it does not develop what we denominate a congestion of the capillaries, and impair the function of the organs by pressure, or by producing an apoplectic or hemorrhagic condition, but it has a direct action upon the nerves themselves.

We might say that the first effect was to lessen the vitality of the nerve, and thus prevent it from properly performing its function. The retina, being an expansion of the optic nerve, is influenced in a similar manner, and as a result we find that the sensibility of this organ is blunted. The retina depends more upon its sensibility than upon any other quality, and any agent that will decrease this property does so by lowering its vitality; hence it will not receive impressions as quickly nor define the image as distinctly as it did before this reduction took place. Even after the image has been formed, the optic nerve is slow in conveying the impression to the brain. As the power of conductibility in the optic nerve has been reduced, the impression is not only conveyed imperfectly, so to speak, but a portion of it is lost in transit. The impression is not and can not be so marked, and the molecular change is not so great. As a result of this, we have the object presented as if enveloped in a mist. and it has a hazy appearance. The common remark make by patients who have this defect of vision, which is commonly called by physicians tobacco amaurosis, is that objects look as if they were surrounded or enveloped in smoke.

By dry or destructive distillation at a red heat another agent is obtained, which has been denominated empyreumatic oil. It is about the color and consistency of molasses, with an acrid taste and precisely the odor of an old pipe that has seen years of service without knowing that such an arrangement as a Board of Health or State Sanitation ever existed. This is a powerful poison, and a very small quantity introduced into the circulation would destroy life.

The medicinal effects of tobacco upon the system are very marked, whether taken internally or applied externally. In small quantities, taken by either of the methods in which it is commonly used, it acts as a sedative narcotic to those habituated to its use. To this class it has a very soothing and calming effect, and they can while away the hours in a dreamy half-stupor, while they build air-castles in the smoke as it curls upward toward the ceiling. A person thus influenced by tobacco is not unlike the opium-smoker or the hasheesh-eater, enjoying the exhilarating and soothing influence of the narcotic, while everything assumes a pleasing attitude, and all sounds have an increased musical quality. But every wave is followed by a depression, and the latter is as much below the surface level as the former was above it.

The same can be said of the brain and its branches. If we have an increased expenditure of nervous force from the use of a stimulant, it shows that there is an exhilaration or elevation of the nervous system above its normal surface or level. After the effect of the stimulant has passed away, then we have the depression following. With those who use tobacco constantly, this depression is prevented by a continued use of the drug. The effect becomes manifest when, from any cause, the habitue is forced to abandon its use. Then we see the effect in the excited action of the heart, increased frequency of the pulse, the coated tongue, dryness of the mucous membrane of the mouth and pharynx, intense headache, feverishness, irritability of temper, etc. This is the consequent depression which is sure to follow in this class of cases when the drug is suddenly withheld, and is one of the strong links in the chain of evidence to prove that tobacco has an injurious effect upon the nervous system.

In large quantities, or with those unaccustomed to its use, tobacco causes giddiness, faintness, nausea with vomiting and purging, followed with great debility. As the nausea continues with severe retching, the skin becomes cold and clammy, the muscles relaxed, the pulse feeble, fainting and sometimes convulsions ensue, terminating in death.

At one time the practice of taking an infusion, or the smoke, and introducing it into the rectum for the purpose of relaxing the system in order to facilitate the reduction of hernia, was in vogue. But it was found to be a dangerous proceeding, and as reduction was effected in some cases at the cost of the life of the patient, this method was abandoned in favor of the less dangerous anæsthetics. Dr. McGregor has observed some of the most severe symptoms following an injection of only half of a drachm of a decoction of tobacco. Dr. Paris saw a case in which a decoction of tobacco had been given to relax the system in order to reduce a strangulated hernia, and the patient sank rapidly and died in a very short space of time. Dr. Copeland speaks of a case in which death was produced by an infusion containing only thirty grains. Tavignol had a case which terminated fatally in eighteen minutes.

The application of the infusion, or of the leaves, or of pulverized tobacco, to surfaces deprived of the cuticle, has, in some instances, been attended with fatal effects. Inhalation of the smoke has caused death. Dr. Namias reports the case of a smuggler being poisoned by reason of his having enveloped himself, under his clothing, with tobacco leaves for the purpose of defrauding the revenue. The leaves became moistened with perspiration and produced the characteristic effects of poisoning, such as small and feeble pulse, faintness and cold sweat. In this case, as it does in a great many others, the toxic principle seemed to exert its influence chiefly upon the heart. It is useful for us to know the effect produced by applying it to the surface, for there are some remedies (?) for skin diseases that contain a large percentage of tobacco.

It has been accepted and believed by a large number of oculists that tobacco has an injurious effect upon the organs of vision; that in some peculiar manner it contains the power of reducing the normal function of either the optic nerve or retina, or both. While some are willing to admit that tobacco does affect the organs of vision and hearing, others are equally as willing to deny it. Believing that it does, the question presents itself, Does it make any difference, so far as the effect is concerned, whether it is consumed by smoking or chewing?

As we have already stated, we have a condition presented in smoking which we do not have in chewing, viz.: the formation or production of new agents. These agents, which are produced by heat, are not only acrid and irritating to the mucous membrane, but poisonous to the system. From this, then, it is evident that we would be more apt to have the effect produced by the drug being consumed in this manner.

When tobacco is chewed, we have first the local action upon the mucous membrane of the mouth and pharynx. A certain amount is absorbed by the mucous structures, and brought in direct contact with the capillaries of the circulatory system and peripheral filaments of certain nerves. The capillaries absorb a portion of the solution that has been formed, so that we have the combined effect from that which has been taken into the circulation and a direct irritation to a portion of the nervous system.

The first effect of chewing we might denominate a local one, yet it has a reflex action. The influence is produced from two sources. First, the mechanical effect that any foreign body will have when placed in the mouth to stimulate the salivary glands; and, second, the irritation that is produced, increasing the flow of saliva. Whenever an organ is called upon to perform an increased amount of work, and especially those organs that are secretory in action and carry on their function at the expense of some other agent, it will produce a drain upon the system which is not natural. If this excessive flow is kept up, it must be at the expense of the system. As a result, we have a reduction of vitality or resistance. The system is then placed in a condition which renders it more susceptible to disease. This is seen in some cases by the manifest nervousness and irritable condition. The effect upon the nervous system may be sufficient to produce a tremor of the hand and fingers, or it may cause vertigo, faintness, nausea and vomiting. A continuation of the effect might produce collapse or fatal prostration.

It is generally admitted, even by consumers of the drug, that tobacco should be avoided by persons who have not reached their full bodily development. If it will injure the youth who is not fully matured, it must do so by acting upon the cells, and preventing them from receiving their proper nourishment. This may be done, in part at least, by an obstruction in the avenues through which they receive their sustenance, or else by the toxic principle entering into the blood and contaminating this fluid, upon which all of the structures depend for nutrition; or, and I think that it is more probable, we may have a combination of both of these conditions.

The cell or molecular portion, or, as Dr. Beale calls it, the "elementary part," is composed of matter in two conditions; first, that which is forming, and, second, that which is formed. The first is the most important, as it appears to possess more of an inherent power, and grows by converting the nutrition received into matter like itself; the latter, which is also very important, increases at the expense of the former.

The cell receives its nourishment by the pabulum passing into it from the periphery to the center. This pabulum is formed in the blood from substances that have entered the circulation, either through the digestive organs or by absorption from some portion of the body. It is not necessary that all these substances shall be food, in the ordinary acceptation of that term, for frequently a toxic agent will be taken into the system just as readily as a nutritive one. Whatever be the agent that enters the circulation, it is appropriated, and, if suitable, applied to the building up of the various tissues and structures. However, it may be inert so far as furnishing nutriment is concerned, or it may act by causing the death and elimination of the cell. By this we do not mean that every particle of the substance thus introduced is retained, for we are aware that elimination is constantly taking place, and the greater portion of some agents are disposed of in this manner, without being appropriated for the development of the tissues. In many instances, when a lethal dose of poison has been introduced into the system, the patient has been saved by this peculiar process in nature's laboratory. As soon as the poison has been absorbed and conveyed into the blood, a portion of it is almost immediately thrown off with the fluids of the body by elimination or secretion, while a part would be deposited in the various structures of the body.

All the toxic agents that enter the system through the ordinary channels do not become manifest until they have reached the capillary system. From this point they enter upon their mission, either of benefiting or injuring the part to which they are applied.

As we have already stated, the cell is nourished by means of the pabulum or food that is obtained from the blood. The blood receives its nourishment chiefly through the stomach. Into this latter organ we have conveyed the saliva impregnated with tobacco, and consequently we must naturally expect that there will be a certain amount of it in the pabulum as it is conveyed to the cell.

The cell is composed of an outer portion, which has been variously denominated as cell-wall, products of secretion, intercellular substance and periplast. I am satisfied that surrounding this we have a thin membrane, which we shall term the capsule. The central portion of the cell is called the nucleus, endoplast, cell-contents or protoplasm. The central portion is the germinal matter, the nucleus being in the center of the latter.

The nutrition passing to the cell is not applied to the external portion forming an envelop or outside tunic surrounding it, but penetrates not only the capsule and outer structures and the germinal matter, but the nucleus also. When it has passed within the nucleus, it begins to assert its own individuality. It becomes endowed with properties that heretofore it did not possess, and from an inert substance, controlled only by and through other agencies, it receives the power of acting, living, growing and moving. Whether this power is protoplasm, that has had the fires of divinity kindled within it, or whether it is the personification of the Deity in matter is not in the province of this article to discuss.

We have the nutritive substance entering into the nucleus, and, as it becomes animated or vivified, it forms a nucleus within a nucleus, or a nucleolus. As more pabulum is constantly entering the nucleus, and the latter enlarging and becoming the external substance, we have a constant motion or change taking place. If the pabulum contains nothing but what is strictly denominated nutrition, then we have the component parts of the body as well as the cells formed from pure material. Then we would expect to have a perfect cell formation, one that would not only be regular as to its construction, but one in and through which the forces of nature might be conveyed in an uninterrupted manner. If, however, we have a toxic agent entering into the formation of these atomic elements of which the body is composed, then we can not expect that the various parts would be as regularly formed or as harmonious in their action.

That tobacco will have an influence upon the cellular structure is evident from the general effect upon the system that is sometimes so potent. It is not a rank poison in the ordinary method in which it is used, acting upon the system like the bite of the cobra de capello.

Strychnia and prussic acid act almost instantaneously when introduced directly into the circulation. Christison found that when the muriate of conia was injected into the femoral vein of a dog, he was unable, with his watch in his hand, to notice any appreciable interval of time between the introduction of the poison and the time in which the animal died.

It is generally considered that a poison in a small dose is a medicine, and that a medicine in a large dose is a poison. From this we can see that prussic acid, strychnia or the muriate of conia may be either a medicine or a poison, depending upon the size and frequency of the dose. The thirtieth of a grain of strychnia given at *proper intervals* may be a tonic, while one-half of a grain might be a lethal dose and cause death. It must not be inferred from the above statement that the common use of tobacco, admitting that it has toxic properties, is a tonic to the system, and consequently a benefit.

It is a well-known fact in cases of lead poisoning that carbonate of lead may be introduced into the system through water or articles of food in quantities so small as to be almost impossible of detection by the finest tests, and yet, although entirely different in their nature and progress, ultimately we have the same result produced as if a large quantity had been swallowed at one dose.

In some instances, the slow and chronic form of producing a structural change is productive of more permanently injurious results than the more acute or active variety. In acute congestion of the spinal cord, we have the symptoms marked and well-developed, pointing to and locating the disease in that organ. It is quite different, however, in posterior spinal sclerosis. Here the disease steals upon the unsuspecting victim insidiously, and in the fugitive pains that are noticed in the body and limbs lurks one of the most dangerous of all enemies to human happiness, placing the red signals where they will be mistaken for white ones, and while the patient is talking of his rheumatic and neuralgic condition to his friends, locomotor ataxia obtains a firm foothold upon the spinal cord. The man who has his acute "periodical drunks," providing they are not too frequent, is not as liable to fatty degeneration of the liver or granulated kidney as the one who, chronically, although he does not become sufficiently intoxicated to exhibit the pathognomonic symptoms, yet keeps his system saturated with alcohol.

In the same way tobacco may gradually produce its effect upon the system, more especially in those cases where there is rapid development of new tissues and structures. In the youth who is developing rapidly, we have presented a condition of activity; the energies of nature are exercised in the formation of new structures, and it is necessary that the nutrition should be healthy. Unless it is, we can not expect a perfect cell to be formed, and as the latter is essential to perfect development, it becomes necessary that all agents that exert a baneful influence or contaminate the blood should be avoided. Not that nature will have to succumb to their influence in all cases, but it is an impediment in the way of progress; it is an obstacle that can not always be surmounted, and consequently is incorporated as a compromise, so to speak, in the formation of the tissues.

It is very evident that such a condition is detrimental to the system, and, instead of being fortified by this process, it is weakened. Disease, then, instead of being repelled, is invited to that extent that we have its ally and friend on the inside of the fort. We place this person in the midst of a plague and we find that the powers of resistance are reduced.

Some think that tobacco is a prophylactic or preventive of a great many diseases, but we would not recommend it, for it might prove to be like a reputed *obviator* of yellow fever, in which the remedy might be as unpleasant as the disease.

By some it has been considered that the vapor arising from this drug was healthy, and that persons engaged in tobacco establishments were not unpleasantly influenced by it. However, the researches of M. Mulier have led him to the conclusion that the vapors long respired have an injurious effect upon the health of the individual. Among the first effects which he noticed were headache, nausea, languor, loss of appetite and sleep; while the secondary effects were manifested by a general disturbance of the health.

If tobacco will have a pernicious influence upon the formative cell in a boy, it can not be entirely without effect upon the same structure in the man, for the latter is but a later edition of the former, frequently with but little, if any, revision.

Dr. Prout says that a poisonous substance like tobacco, whether in powder, juice or vapor, can not be brought frequently in contact with any absorbing surface like mucous membrane without, in many cases, producing disorder of the system, which the consumer is quite ready to attribute to any other cause than that which would render it necessary for him to deprive himself of what he considers not merely a luxury, but an article actually necessary to his existence.

Just as we finished the above sentence, a gentleman came into the office and casually remarked that he was and had been for a number of years a sufferer from dyspepsia. I remarked, Why do you not do something for it? He said: "No use. I know what causes it—tobacco; no use to take medicine or do anything for the dyspepsia unless I give up chewing tobacco, and I do not intend to do that, for I would rather have dyspepsia and chew than to quit chewing and be well." Here we have the man recognizing and admitting the cause of his suffering, but he is so addicted to the habit that he prefers to have the gastric trouble and its unpleasant consequences rather than give up the use of tobacco.

A great many habitual consumers of tobacco say that, instead of harm, it is necessary to aid in digestion, to prevent dyspepsia, and allay numerous ills that would constantly be annoying them if they did not use it. A gentleman stated to me that he smoked to prevent constipation; that the effect was like a laxative cathartic upon the bowels. He had an attack of pharyngitis and had to quit smoking. At the end of six weeks he had not noticed any change in his condition—had not become the least constipated; so that his theory (excuse for smoking) did not stand the test. A person who chews or uses tobacco in any form may tell you that it is not injurious, but they are very severe in their criticisms on their neighbor who uses opium. They are very emphatic in saying that it will not only be injurious to his health, but that it will eventually impair the intellect. His neighbor is probably a literary man, and will be able to present as many excuses for the use of the extract of one weed as the other one can for the substance of another. Yet I think it would be almost impossible to convince the consumer of tobacco that opium in small doses was not only harmless, but of actual benefit to the brain-worker, as it has a stimulating effect upon that organ, producing an exhilarating condition in which the "mind was clear," and ideas presented themselves in a much more tangible form, that thought flowed more rapidly, and that more work could be accomplished in one hour with it than in two without it. (We do not say that this agent is harmless, or advocate its use for this purpose, but are simply presenting the argument.) The advocate of tobacco will say that when the effects of the drug begin to pass away they will feel depressed and uncomfortable, and by the time the stimulation thus produced has ceased altogether, it will be followed by a condition of nervousness, irritability, moroseness, depression of spirits, etc. On the other hand, the opium consumer will say, We can follow your example, and when the effect begins to pass away we can take some more —but lend me your glasses, and I will then, in turn, enumerate all of the conditions you have named, place them in your category, and then add the disgusting expectoration of tobacco juice and the disagreeable odor that exists in the breath of all those who chew the weed. But the upholder of tobacco will say that its use is not followed by the same unpleasant effects as follow the use of opium, the system is not influenced to so great an extent, and the *after-condition* does not last so long.

Probably not, but let him remember the effect of the first chew or the first cigar, and the picture presented is frequently brought back so vividly that it does not even seem so long ago as yesterday. The condition of faintness that presented itself, the nausea and vomiting as the stomach rebelled at the presence of saliva impregnated with the heretofore unknown entity; the shadow that came over the field of vision like a dark cloud covering the sun before a storm; the giddiness and vertigo as the attempt was made to find a convenient place to sit down and contemplate the prospective future, and meditate upon the difficulties that a boy has to encounter when he tries to *imagine* himself a man before he has arrived at maturity; the general relaxation of the entire muscular system, so that the limbs would absolutely refuse to support the body; the pallid face, indicating that the crimson fluid had been frightened, and, leaving the surface, had sought shelter in the cavities and recesses of the deeper organs; the tremor in the limbs, as if, in the general upheaval, the body had encountered an earthquake, and the cold and clammy perspiration would indicate that there had been a violent storm within, that every organ had been at war with every other organ, and that, after the battle, each one was in a worse condition than any of the rest, and they were now seeking a quiet nook where they could sit down and sympathize with each other. This is the state of dilapidation and general demoralization in which the average youth finds himself after the first free indulgence in tobacco. Yet it is surprising to see how readily and willingly he tries it again, after he has recovered from the effects of the first trial. However, there are a few that are satisfied with one effort, and do not care to repeat it.

Opium is classed as a cerebral or narcotic poison, and has its effect chiefly upon the nervous system. Tobacco is classified as a cerebro-cardiac poison, and exercises an injurious influence over the heart as well as upon the nervous system. That tobacco does have an injurious influence upon the heart is patent to every one who has investigated the subject.

A condition of irritability of the heart, with pain, sometimes of a darting or lancinating character in the cardiac region, is very common in persons addicted to the use of this agent. That the irritation and pain is developed or produced by the use of this drug in this class of cases can be proved very easily. All that is necessary, providing a structural change has not been developed, is to stop using it, and the symptoms will gradually pass away and the heart will regain its normal vigor, other things being equal. It is an easy prescription; one that costs nothing financially; yet it is generally considered that the physician is imposing a hard task to get rid of a little pain (?) in the chest.

Tobacco not only develops pain in the heart, but produces an irritable condition of this organ, generally denominated functional, or palpitation. Next we find that the heart occasionally skips a beat, or is very irregular in its rhythm.

Here, then, we have a functional disorder produced, and all that is necessary to change it into an organic one is that the exciting cause shall be continued for a sufficient length of time.

Taylor speaks of a case where a woman applied some tobacco leaves to ulcers upon her legs. After awhile she suffered from sickness, dimness of vision, cramps in the legs, feeble action of the heart, with great prostration, and a general benumbed feeling. Three days later there was sleepiness, headache, and an irregular action of the heart. She recovered her usual health in about eight days.

Richardson says that in smoking we have formed, first, a watery vapor from an increased secretion of fluid; second, carbon, which gives the blue color to the smoke; third, ammonia, and this is what bites the tongue after long smoking, and makes the throat dry and excites the salivary glands to secrete freely; besides, it exerts an influence on the blood; fourth, carbonic acid, which produces sleepiness, headache and lassitude if smoking is indulged in for a long time without the proper intermission.

He is aware that tobacco may produce various functional disturbances. Its action on the stomach may produce dyspepsia; on the heart, debility and irregular action; on the organ of the senses, causing dilatation of the pupils, confusion of vision, subjective sounds, etc.; on the brain, suspending the waste of that organ and oppressing it unless it be duly nourished, but, in some cases, soothing by stimulation when this organ is exhausted. The influence exerted on the nerves causes an oversecretion of the glands which they control. On the mucous membrane of the mouth and pharynx causing what has become so common as to be designated "smokers' sore throat." On the bronchial surface of the lungs creating an irritation or aggravating that which may exist, increasing the cough, and developing a predisposition to congestion, etc.

Black makes a very sensible remark in reference to this agent when he says that, even if moderation should not be injurious, total abstinence can do no harm. He also makes the statement that excessive smoking has a tendency to cause paralysis (En. Brit.).

The quantity that is consumed by some is enormous. Dr. Arrott mentions the case of an harbor superintendent, formerly a sailor, æt 64, in good health, who has chewed tobacco for fifty years, and now eats it, leaves, juice and all. For many years he has been in the habit of eating one-fourth of a pound every five days, of the strongest negro-head.

As we have already seen, nicotine will produce dyspepsia and all of its accompanying ills. If we have a musical instrument with one of the strings broken, it is evident that the usefulness of the instrument is impaired. The musician can still perform upon it, but when he comes to the note that should be produced by this string, then it is that the discrepancy becomes apparent. This one broken string affects the music of the whole instrument, not so much by changing the vibration of the other strings or reducing the purity and sweetness of the tones, but by the loss of an important note. So it is with the system, except the sympathy is generally more marked. If an agent is introduced that affects one organ, especially the stomach, even without manifestly influencing the function of the others, which is in the nature of an impossibility, it would still have an injurious effect, from the fact that nutrition can not properly take place with a diseased digestive apparatus, which is the key-note to the entire organization.

This effect is not only physical, but mental as well. Anything that injures digestion, retards nutrition. Nutrition can not be perverted without producing a pernicious effect upon the central ganglia and its branches. It can not affect the brain or any of its organs without a corresponding result produced upon the mind.

The brain is the highest development or the highest monument upon which God has inscribed himself, His laws and principles in nature or man. It is through this organ and upon it that He has reflected himself, as a picture is thrown upon a mirror, for the highest uses and manifestations of His wisdom. Through this organ He governs and controls all of the organs of the body. Then it is evident that, in order that the proper dictation or influence shall be transmitted from the brain, this organ should be in a healthy or normal condition.

Any drug or agent that produces a toxic effect or impairs the functions of any of the organs must exert an injurious influence on the general nutrition of the body. Tobacco, as we have already seen, does impair the normal vitality of the brain and cellular structures of the human organization.

The stomach and the brain are intimately connected with each other by the nervous system, and whatever influences one is very apt to be felt by the other. Through digestion we find the greatest effect produced upon the brain. The nerves serve as the connecting links, or rather the telegraph wires, upon and through which one organ transmits intelligence to another. The circulatory system is the key-board upon which this dictation is made.

Even the most remote portions of the body are not exempt from the effect of any drug introduced into the system. So long as any part of the body is dependent upon the law of induction for its sustenance, so long must it respond to the source from which it derives its nourishment. So long as nature is provided with healthy nutrition, so long does she perform her functions easily and well. Every portion true to herself, continually building, accumulating, developing, and the only destruction she knows is the waste or decay incident to growth. This is her only death. Disease becomes a stranger, and everlasting life is her rightful inheritance. Hence a healthy action of the body is requisite, and becomes the adjuster of all evils or wrongs.

To introduce any poison into the system instantly clogs the machinery. Nature at once makes a loud call or demand for a remedy to remove the wrong and establish a resistance to future invasions. She at once assumes the defensive, and throws up a wall of resistance by which she can not only resist the coming of the foe, but here and there establish a signal of warning, by which coming generations can be made aware of the existence of pitfalls or dangers which she has so successfully overcome or resisted in the past. Hence nature has carved her own steps in the rock of ages upon which the heights of progress have been ascended.

In smoking, the organs of the throat, becoming unduly heated, and absorbing the toxic agent, conveying it to the organs of special sense by the nerves, always too willing to carry that which is injurious, and receiving a sudden chill by coming in contact with the colder air from without, suddenly chilling not only these organs, but the nasal passages and appendages as well, thus producing catarrh of these organs and bronchial irritation, which may carry slow death home to the victim.

Anything from which man derives pleasure, frequently falsely termed luxury, overstimulating, thus overstraining, the membranes and organs of the individual, must of necessity carry pain and destruction to the subject rather than health and enjoyment.

The overweening desire for human nature to become what it is not and can not be induces the street gamin to take up from the debris of the gutter the remnants or stumps of cigars that have been cast aside by men and boys from the so-called higher walks of life. From each curl of smoke he recognizes the stairway upon which the rapid ascent to manhood is made, the same as the child of more luxurious tastes, because of the higher cost applied to the same luxury, but against which nature revolts alike in both, presenting a direct protest against the use of this noxious weed, by which each subject becomes alike nauseated and the whole system debilitated or prostrated.

Rank makes no difference and is no respecter of persons as to the effects produced upon the natural system by this unnatural stimulant. Everything that enters into the general circulation of the body tends either to build up or destroy the members of that body. Not any portion of the body becomes as sensitive to the salutary or deleterious effects of diseases or drugs as the spinal column. It is as the body of the tree sending out numerous branches, giving life and vigor to each particle of the body as if it were an individual vitalized by its own life. From it emanate nerves; from it they gather strength and nourishment as the center from which they radiate. It imparts force and vigor to the whole body, sending downward into the roots as well as upward into the branches of the tree that vigor which brings forth each manifestation of sensation, as if it were the fountain from which is drawn up the power to communicate with the brain, and thus leave a true index of the real condition of every branch of the system. It is as the tree that sends out its roots and tendrils a long distance for water, bringing sustenance and vitality up through the center to the circumference or surface of the human body, gathering, as it does, strength from digestion or from nourishment taken into the body, sending it out through every nerve and fibre and vessel to every extremity, and it must of necessity become seriously affected by such an unnatural stimulant as tobacco. It becomes the power which distributes the toxic principle through the whole ganglionic system. Hence tobacco, affecting the nerves so directly as it must, has an influence on every organ of sense or sensation.

There is hardly any foreign toxic agent which tickles the fancy and awakens sensations of dreamy pleasure which can impart so much injury to the general system as the use of tobacco. Alcohol is not as subtle in its approach, does not allure the senses so stealthily, does not obscure the judgment by such a film of smoke, does not overwhelm sensation and mislead the mind into such circuitous paths as tobacco. It is the avenger for its own evil deeds, and it forms its own clouds, in which it reflects its own figures to allure the senses on to destruction.

It is more potent than strychnia or arsenic, curling itself about the whole being and obscuring the light of the intellect by the gradually thickening clouds of smoke arising from those altars from which only the incense from an unclouded mind illumined by the sunlight of an undimmed reason should ascend.

The application of remedies after the contraction of such habits must be in their nature almost entirely psychological. Being well aware, as most physicians are, of the injurious effects of the administration of drugs, and the effect of the mind upon the whole system, it becomes important that we should incline the mind or imagination to that which is most favorable to overcome physical tendencies.

Observation teaches us that all nervous diseases are subject, more or less, to the influence of the will or imagination of the patient. However, be that as it may, the power of resistance is increased in proportion to the strength of will applied. In this resistance we find the whole imagination becomes involved.

Socially, tobacco is a tie by which men become linked together, and, finding conversation oftentimes more inspiring and thought flowing more freely, and imagination presenting her pictures more vividly, the mental sky apparently clearer, and the mind apparently more active, the man becomes deluded into the belief that it has not only quickened his faculties, but strengthened them as well. Vain hope! Not only is the mind darkened or shadowed by the continued use of a toxic drug, but the intellect becomes more obscured. It is not strange that the human mind is led to accept the theory that by its use the individual experience has become more active or enlarged; that he has attained to a higher degree or condition of happiness; but instead, the delusion has enveloped him with its blue haze, and has hidden from him the actual enjoyment, and he is plunging deeper and deeper into the depths of uncertainty, and really finds himself landed in cloud-land rather than anchored beneath a clear and unclouded sky.

Anything which tends to depress or lower the natural tone of the nervous system prepares the body for the contraction of all diseases into whose atmosphere the subject is placed.

The atmospheric environments have really but little to overcome in order to gain entire possession of the body thus brought into contact with it.

The depressed system becomes more susceptible to malarial impressions or influences, until it can become the instrument through which all malignant diseases can make more rapid strides, and contagion can scarcely recognize a boundary.

Were it not possible that both mind and body can be made subjects, then we would be able to draw a line of distinction by which we could separate the injury inflicted upon the body, and the subject could be made to recognize the importance of removing all encroachments or obstructions in the way of improvement or progress.

To permanently remove the injuries inflicted upon the human race by the use of tobacco, the education of the young should become the most important factor. The entire freedom from any habit which enslaves or throws about one the meshes of any form of bondage could be entirely obliterated through the appreciation of the thorough enjoyment of a better and freer mind and a stronger and more thoroughly fortified body against the invasion of disease.

It is not only important that the man should see for himself the injuries growing out of any habit which can not improve either in mind or body, but rather enslaves and inflicts injury instead. Worse than almost any other habit, because of its allurements penetrating more deeply and its injuries abiding more permanently with man. Therefore, to fortify the young against the contraction of the habit, and to help the weak through the influence of education to remove a growing evil, becomes the only direct means by which an universal slavery can be destroyed and the fettered soul be set at liberty. This is the emancipator, friend, physician and savior of mankind.

There is no doubt but that tobacco is productive of more of the neuroses than it receives credit for, especially paralysis and paresis, and I think we can safely say that it does more harm than any other stimulant in which man indulges his appetite. Furthermore, it is productive of more diseases being introduced into the human system than any other habit formed as a luxury to be indulged in by man.

As we stated in a former article, the organs of special sense are simply mirrors through which the brain projects the workings of the mind. The cells form the great highway through which the ideas travel in passing from one organ to another. They not only act as transmitters, but also as receivers. They are located in the terminal filaments of all the nerves of special sense for the purpose of receiving the impressions, and then, by a continuous chain, transmitting them to the brain.

The operations of the brain are produced by impressions which are transmitted, either in the form of undulations or rays, to some of the organs of special sense. An impression is the result of irritation. This irritation is produced by the impinging of a ray or an undulation upon some of the cells that are located in the organs of special sense. A ray of light, for instance, after entering the eye, strikes upon the retina. The act of receiving this ray by a cell is denominated an impingement, and this produces an irritation, which is, in reality, a concussion, but recognized as an impression; and the latter is then conveyed to the brain by means of the cells. The cells in the organs of special sense generally have two or more prolongations. The external cell in a terminal filament has the receiving pole or surface directed toward the avenue through which the ray or undulation must travel to reach this organ. In the retina we find that the external or receiving pole is directed toward the nodal point in the crystalline lens.

As we have already described, in a former number of the NEWS (January, 1883), all communication through the cellular structure of the body is made in a longitudinal direction. The brain is the center from which all the results of impressions emanate. The causes which produce the impressions are generally external, and must be carried to the brain. In this arrangement we recognize the handiwork of the Creator, in which we have the long or longitudinal axis of the cells, corresponding with the direction either to or from the brain. This is especially true of those cells that are directly concerned in the transmission of impressions to or from the center of intelligence. It is not only necessary, then, that these cells should have a definite relation to each other, but their individuality must be maintained in a normal condition. By individuality we mean the power which they possess to properly perform their functions. This function consists in the ability to receive and transmit an impression without detracting from its influence in its passage through the cell. This is necessary in order that the amount of molecular action in the brain may be the actual equivalent of the impression received.

Anything that will interfere with the action of the brain, or with the conductors that transmit the impressions, will have a tendency to obtund or lessen sensibility. It is impossible for us to have a healthy digestion with a diseased condition of the mucous membrane of the stomach or small intestines; neither can we expect to have acute or sharp perception with blunted and dull organs.

The power of a cell consists in its ability to transmit all of the impression that has been made upon it. In order for it to do so, it is necessary that a certain amount of resiliency should exist.

We have seen that the pabulum or food from which the cells receive their nourishment—and not only that, but the material itself out of which the cell is composed, simply by a transformation, and not a digestion—is impregnated with nicotine, and it is evident that it will exert a deleterious influence over these structures. It not only interferes with the normal resiliency of the cells, preventing them from properly performing their functions, but it retards the change from repose to action. During activity the cells assume various shapes and forms, but when quiet naturally assume a spheroidal outline.

Life means action, and in this action there is more or less change from one form or shape to another, followed by a period of repose. Whether the system is appropriating nutriment and adding to the structures, to guard against waste and loss, or whether an impression has arrived in the brain—and expanding, gaining force, thus forming a motor impulse by molecular action, or the natural result of muscular exertion—it all means and is performed by the changes that take place in the cellular elements of the system.

Nicotine, by its constringent properties, has a tendency to interfere with all of these delicate changes that are so necessary in intellectual development.

To see whether tobacco is an aid or an injury to physical exertion or mental attainment, take the history of Kossuth, or of Napoleon, or of the Crimean war, or the report of the Academy of Sciences, Paris, as to the habits of those who carried off the prizes, or the report of West Point, and, after carefully reading them, make your own deductions and draw your own conclusions.

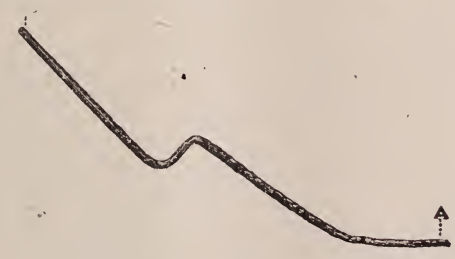
Tobacco, in the form of snuff, is frequently used for the purpose of robbery. The victim is allured into the den or brothel, and made to drink beer, or ale, or porter that has been "doctored." In a short time he becomes unconscious, and is then at the mercy of his enemy. There is no doubt but that this practice is common.

Removal of a Foreign Body from the Womb of a Consumptive Woman, Followed by Recovery.

BY WADE M. LOGAN, M. D., CINCINNATI, O.,

Author of a Treatise on the Pathology and Treatment of Pulmonary Consumption, and an Essay on the Curability of Consumption.

In January, 1882, I was consulted by a lady aged about twenty-eight years, and married a year, or more, last preceding. She complained of profuse leucorrhœa, constant headache, sick stomach, loss of appetite, and such a lack of physical strength as to be really an invalid, and fit for nothing. She stated that her health had always been good until within a couple of years, and that during that time it had been constantly failing; that while the catamenia had at no time been protractedly stopped, during the time of her invalidity it had been irregular and painful. Being unable to obtain the patient's consent to an intra-pelvic examination, I treated her expectantly, for a while, with bitter tonics, bismuth, oxalate of cerium, pepsin, etc., to relieve the irritable and enfeebled stomach, increase the appetite, and promote digestion, while, for the uterine feature, I resorted to the empirical employment of various vaginal astringent injections—all to no purpose. After an unsatisfactory trial of this treatment for six weeks, I declined to be further engaged in the case without being allowed an opportunity to make out a diagnosis, which would, of course, involve a vaginal examination. She then left me, and passed successively under the treatment of several other physicians, including two prominent homeopathists, growing continually worse, afterward returning to me in the fore part of September, 1882, profoundly broken in health, with all of her former symptoms aggravated, plus unmistakable tubercular deposits at both pulmonary apices. The patient at this time gave her consent to an examination. By the finger nothing unusual was detected, except that the posterior lip of the uterus was enlarged to the size of a hulled walnut, and extremely tender to the touch. After adjusting a Palmer's trivalve speculum within the vagina, and wiping the superabundant secretion from the presenting parts, I observed that besides the posterior lip being greatly swelled, slightly to the left of the mesial line, and one-fourth of an inch posterior to the os tincæ, was a minute, round, dark spot, which, upon being touched with a probe, communicated the same sense of resistance that a stone in the bladder does to a surgeon's sound. Closer inquiry showed that this extraordinary speck was a metallic substance which projected very slightly, perhaps less than a sixteenth of an inch, from the surface of the posterior uterine lip. Its removal I effected by seizing it with a pair of dressing forceps, and, making traction, the neck of the womb was brought out to the vulva; then grasping the cervix with the thumb and first two fingers of the left hand, and making counter-pressure, while employing considerable effort with the forceps in the right, I succeeded in withdrawing what proved to be a steel wire,* of the size, length and shape exhibited in the accompanying figure. A moderate bleeding, which followed its removal, was allowed to continue several hours, stopping spontaneously late in the afternoon of the same day, after having diminished somewhat the enlargement of the posterior lip, and relieved considerably its extraordinary tenderness.



A—End which presented at posterior lip.

For nearly two weeks I kept the patient in bed, with her hips slightly elevated, painting at first daily, and afterward every second day, the presenting part of the womb, through a trivalve speculum, with a saturated solution of tannin in tincture of iodine, obtaining, almost from the first, remarkable improvement, to finally complete recovery from her distressing uterine malady.

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* Not having been able to obtain, with the history of the case, any personal explanation accounting for the presence of this foreign body, and as foreign bodies of various kinds are of not unfrequent occurrence in the female sexual apparatus, I will refrain from offering any remarks in regard to it, but leave my readers to draw their own inferences.

So much accomplished, the appropriateness of the tonic remedies which I had previously unsuccessfully employed, was soon proved, by the relief they were at last enabled to give to the irritable and enfeebled stomach, followed by increased appetite, wholesome digestion, and consequent invigoration of the entire organism, with, of course, a corresponding antagonism to the tubercular dyscrasia, which sprang from the lowered vitality or vitiated condition incident to the general constitutional disturbance. In addition to the tonics mentioned, various soluble ferruginous preparations were used alternately, with an anodyne expectorant occasionally, and cod liver oil, in recently prepared emulsion,* persistently, for five months; when, although very slight percussion dullness, with modified broncophony, could still be detected at both pulmonic apices, the robust appearance and comfortable condition of the patient, she then having no cough or other subjective symptom of disease, warrants me in the conclusion that she made a complete, and, under reasonably favorable circumstances, permanent recovery.†

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*I will not pause here to describe the processes by which are prepared the various emulsions of cod liver oil, which I direct my patients, under different conditions, to use, but will reserve that matter for discussion at another time, under the heading of Cod Liver Oil Emulsions, in a paper which I purpose producing presently, entitled "Some Observations Upon the Treatment of Phthisis Pulmonalis." I may state, without boasting excessively, that the apparatus which I devised a few years ago, with which to cheaply and efficiently prepare palatable Cod Liver Oil Emulsions, was, upon the score of novelty, awarded a Silver Medal by the Seventh Cincinnati Industrial Exposition, 1879.

†Of the condition of the lungs after consumption has been cured, Dr. Williams says: "The signs of the cure of phthisis might be expected to be the complete disappearance of those of the disease, but it is rare that the disease and its effects are so completely removed as to leave no trace behind. We can record a few cases of incipient disease, chiefly of inflammatory origin, and of decidedly consumptive character, in which crepitation, dullness and tubular sounds have been entirely removed, and the patients have been restored to complete health. But the commoner degree of what may still be called a cure, is where the general health is recovered, cough, and expectoration, and other symptoms have ceased; yet the physical signs, whilst showing a cessation of all active disease, still indicate traces of its effects on the lungs and their coverings. Thus, a collapse under a clavicle; a flattening of the upper or lateral walls of the chest; slight variations in the sound on percussion, and in the respiratory movements; a weakness or a mere roughness of the in-breath sound in the former seat of disease; a remnant of tubular sound, especially above a scapula in some of its varieties—whiffing, blowing, long out-breath, broncophonic—may permanently remain, evidences of trifling changes left by former diseases, but not materially interfering with function or structure, and therefore productive of no further disorder than perhaps slight shortness of breath, and disposition to cough on exertion and on changes of temperature."—Williams on Pulmonary Consumption, London, 1871, pp. 177 and 178.

The later history of this case, dating from the cancellation of its gynæcological feature, involving, as it does, the gradual but constant improvement in all of the bodily functions until the complete arrest of the consumptive complication, and recovery, whereas prior to that no treatment was at all availing, illustrates quite felicitously a matter that Dr. James Henry Bennet, of London, has frequently pointed out, viz: that many consumptive women, having a neglected female complaint, are frequently unsuccessfully treated for the pulmonary malady, until after due attention to the uterine disorder. He says: "Through the usual morbid reaction of the uterus on the stomach, they have no appetite, are tormented with nausea, and can neither eat nor digest. They all invariably perish, if I am not able in time to remove the uterine malady, and thus to restore the tone of the stomach, the natural desire for food, and the power of eating and digesting."*

Translations from Our Foreign Exchanges.

Translated for MEDICAL NEWS by Dr. Illowy, Cincinnati, O.

PERITONITIS AND PERITONISM.

Service of Prof. Trastour.

ON the occasion of a case of acute peritonitis, rapidly fatal, with algid symptoms, in a young man of 18 years of age, who had swallowed some orange seeds in eating the fruit, Prof. Trastour recalled the ideas put forth by Prof. Gubler in 1877 (*Journal de Therapeutique*) on the distinction which should be made between peritonitis and *peritonism.* The symptoms pertaining to an inflammation more or less general of the peritoneum are well known. Peritonism is the morbid syndrome of grave complications of abdominal lesions; that is to say, the ensemble of reflex phenomena, which are sometimes manifested in the patient, by the grand functions of circulation and hematosis, through the intermediation of the great sympathetic.

Peritonitis and peritonism are not necessarily concomitant one upon the other. We have observed inflammations, even generalized, of the peritoneum, in which no general symptoms have been observed. In certain puerperal peritonites, although the peritoneum be full of pus, even pressure upon the abdomen will hardly produce any pain. In other cases, on the contrary, the slightest lesion of the peritoneum is the point of departure of most excessive pains, with stringy pulse, flaccid skin, algidity, cyanosis, protruding eyes, pinched face, hiccoughs, vomiting, etc.; in one word, the whole cortege of nervous accidents which constitute peritonism.

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*Dr. James Henry Bennet on "Pulmonary Consumption," second edition, p. 27.

Peritonitis is a grave disease; if not quickly checked, it is most frequently fatal; but the reflex accidents are not less redoubtable. It is they which generally cause the death of the patient. In animals, in whom these exaggerated reflexes do not occur, the most extensive lesions of the peritoneum do not provoke any general troubles. Peritonism seems, in fact, special to man.

Gubler, with great sense and reason, has made prominent the importance of peritonism among the accidents of peritonitis. This distinction is not alone of scientific interest; its recognition is also of great importance in a therapeutic point of view. We institute at once the rational treatment for the inflammation or the peritoneal lesion, and recognizing the nervous origin and the gravity of peritonism, we will strive to prevent or moderate these reflexes. From the outset, we will give alcohol, chloral, and, above all, opium in large doses. The injections (hypodermic) of morphine will be largely employed. The patient will be kept as much as possible in a state of insensibility. Gubler says that without chloroform, no ovariotomy could have been successful. Anæsthesia attenuates what the English very justly call the peritoneal shock—a shock which, without it, would invariably kill. Prof. Trastour is disposed to believe that in the capital abdominal operations for lesions of rather long standing, there is a second cause concurring to prevent peritonism; that is, the previous modifications undergone in these cases by the peritoneum. We encounter, in fact, frequently, a thickening, a sclerosed condition, which renders it less apt to become the point of departure of reflex accidents.

Prof. Trastour closed by remarking how great, in these very painful maladies, was the tolerance of patients for opium. We can, without fear, by dividing the dose, administer to an adult 50 centigr. (grains 7½), a gramme (15 grains), and even more, of the extract of opium, in the twenty-four hours. —*Gazette Medicale de Nantes.*

ASTHMATICS AND CATARRHAL SUBJECTS.

In a communication lately made by Prof. Trastour to the Medical Society of Nancy, and published in the *Journal de Medicine de l'ouest,* he calls the attention of practitioners to the distinction that must be made between *true asthmatics* and *false asthmatics*—between asthmatics and those suffering from catarrh. If the true asthmatic may become afflicted with all the complications of chronic bronchitis, the false asthmatic (the catarrhal) may have veritable attacks of dyspnœa simulating asthma. In both, emphysema is most frequently present.—In the true asthmatic, asthma alternates frequently with the diathetic manifestations which it excites (arthritism, herpetism; it comes on by sudden attacks under the influence of changes of locality, of dust, of odors, etc. —Besides, we find in the asthmatic emphysema more or less marked, little dyspnœa, cough or catarrhal susceptibility.—The false asthmatics have also their balance of conditions hereditary or acquired. They may have attacks of dyspnœa resembling very greatly (as to be mistaken for them) attacks of asthma; but outside of these attacks they remain valetudinarians, and it is these morbid conditions, as variable as the individuals themselves, which must be discovered and modified in order to change the unfavorable prognosis made of asthmatics as a class who have passed the adult age. Outside of the paroxysms, the true asthmatic enjoys good health; the catarrhal subject, the false asthmatic, is still sick. Prof. Trastour studies the morbid conditions of the last-named, the chronic bronchitis and the cardic pulmonary lesions. Of the three elements constituting asthma, the nervous, organic and secretory, it is the last which predominates in catarrhal subjects. The nervous susceptibilities are less in him; the paroxysms of dyspnœa are less sudden, not so well marked, but, on the other hand, the oppression is habitual. In the true asthmatic, treatment must be directed against the diathesis; the prognosis is by so much the more favorable as the paroxysms appear at greater intervals and the emphysema less pronounced. But when true asthma is complicated with chronic bronchitis, the difficulty of diagnosis is great, and can only be supported by the history of the case. Here you have a case where the same indications present themselves for prognosis and treatment in these two classes of patients. Prof. Trastour gives the treatment which has given the best results in catarrhal asthmatics and asthmatics who have become catarrhal. There are four indications to be fulfilled. 1st. *The circulation to be modified.* Bloodlettings (except in true asthma), evacuants. 2d. *To diminish morbid secretions.* Revulsives, vesicatory, dry friction daily, etc. 3d. *To combat chronic inflammation.* The author mentions more especially iodine in solution, iodo ioduree and the iodide of calcium. 4th. *The nervous system to be controlled.* Antispasmodics and sedatives; above all, morphine. With this ensemble of means, the catarrhal respire more freely, do not suffer so much from oppression, expectorate less, the rhonci disappear and the condition of the heart becomes consecutively ameliorated. According to Prof. Trastour, the use of the iodine preparations should be continued for months and years.—*Gazette Medicale de Nantes.*

CONVULSIVE PERNICIOUS FEVER.

The convulsive form of pernicious fever is rarer than the comatose form. Nevertheless examples of the former have been cited. Horn de Wolf Coural have published cases of tetanic pernicious fever; Caldera Lautter cases of epileptic pernicious fever. Dr. Roy publishes in *El Genio Medico-Quirurjico* (March, 1883) a well marked example of the latter variety. The patient, a nervous child of eight years, without any epileptic antecedents, was suffering from a rebellious tertian fever for nearly six months. One day it suddenly lost consciousness. Dr. Roy found it a prey to a violent eclamptic seizure, with trismus and stiffness of the neck, considerable coldness of the extremities, and extreme feebleness of respiration. Indigestion was surmised. Under the influence of a large warm bath, the pulse, warmth and respiration reappeared, consciousness returned, and nothing remained but a slight fever. The next morning the little patient was in good condition, and everything seemed to have terminated favorably, when, on the following day, at the same hour as the day before yesterday, the eclamptic seizures returned with the same gravity. The Doctor immediately administered to the patient a very large dose of muriate of quinia hypodermically and of the bisulphate by inunctions in the armpits and groins. A third attack was thus prevented, and the period of attack is only marked by a slight fever; that was all. As a measure of prudence, the hypodermic injections and inunctions of quinia pomade were continued for several days.—*Gazette Medicale de Nantes.*

EPILEPTIFORM ATTACKS SOLE SYMPTOMS OF STRANGULATED DOUBLE INGUINAL HERNIA.

It is well known that strangulated hernias may, especially in children, be complicated with nervous phenomena, either of excitation or depression, and which are the sources of important thereapeutic indications; but epileptiform attacks in strangulated hernia do not belong to the domain of infantile pathology; they are also observed in the strangulated hernias of adults, constituting frequently the sole symptoms of strangulated hernia, the symptoms called peritoneal, usually so grave, being absent. Dr. Charles Liegois reports a case of this genre in the *Concourse Medicale.* A man 53 years of age is seized with well marked epileptic attacks, tonic contractions followed by clonic shocks, and, lastly, profound stertor. These attacks return at short intervals, following close upon each other. Nothing in the history of the patient, who had been well till now, could lead to the suspicion of epilepsy or of cerebral tumor. Nothing in his antecedents would justify a diagnosis of Bright's disease. Simulation was out of the question, the pupils being insensible to light. It was only after stripping the patient that the cause was discovered, a double inguinal hernia of the size of a nut, badly held by a roller bandage. Here was the sole etiologic reason of the epileptiform attacks. This was demonstrated more clearly when, scarcely had the strangulation been relieved (and double taxis was very easy), the patient regained consciousness and the attacks ceased. A very important lesson may be drawn from this fact: that the symptomatology of strangulated hernia may consist solely of epileptic seizures. The physician, when called to a case of convulsions of whose etiology he may be ignorant, should not neglect to examine the hernial rings.

PAINLESS ACCOUCHEMENT BY MEANS OF INHALATIONS OF BROMHYDRIC ETHER.

Bromhydric ether, or bromide of ethyl, inhaled during labor, suppresses the sensibility of the uterus, whilst its contractility and retractility remains intact; it does not deprive the woman of all intelligence or of all consciousness; she continues to hear and to speak. It does not provoke fullness and buzzing of the ears or vomiting; if the anæsthesia is pushed further (which is useless in a natural labor), the woman goes to sleep, and the waking up is very rapid and without any feeling of sickness. This is the *modus faciendi*: Take an unfolded pocket-handkerchief, pour on freely of the bromide of ethyl, and hold the same two or three centimetres from the face. The woman is told to open the mouth and to inhale freely. After every second respiration the handkerchief is removed, and the fresh air permitted to be inhaled. It is held over the face especially during the pains, and from time to time a few drops of liquid are poured on the handkerchief. These inhalations may be continued without any detriment for several hours, especially if we respect content with simply suppressing the painful feeling, without bringing on sleep. Complete surgical anæsthesia can also be produced by it, if it become necessary to perform an operation. This is the resume of an article by Prof. Lebert in the *Journal de Medicale de Bordeaux*. His purpose, we see, is the production of a demi-anæsthesia causing analgesia of the uterus in a natural labor by means of the bromide of ethyl.—*Gazette Medicale de Nantes.*

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Euphorbia Pilulifera.

BY HENRY. M MARSHALL, M. D.
Government Medical Officer and Vaccinator, Etc., New South Wales.

In the *Australasian Medical Gazette* of February last, published in Sydney, New South Wales, a letter appears from William Brodie, M. D., editor of the *Detroit Therapeutic Gazette*, soliciting information respecting the euphorbia pilulifera from Australian medical men, of their experience of the therapeutic powers of that newly-discovered Australian remedy for asthma, bronchial affections, etc. Partly to reply to that solicitation, and possessing a desire to extend information respecting such a valuable remedy as the euphorbia pilulifera, induces me to write something in regard to the merits of this truly wonderful and beneficial remedy. In looking over my files of what has been said and already written upon the subject, and largely guided by my own observations and experience, I contribute the following, trusting it will prove of advantage to the numerous readers of the Medical News, and also be of benefit to my medical brethren in the United States generally.

The euphorbia pilulifera is a weedy plant growing wild in the northern parts of Queensland, and was first introduced into practice by the late Dr. Carr-Boyd, of Townsville, Queensland, some three years ago, as a successful remedy in asthma and affections of the respiratory organs. The great success attending Dr. Carr-Boyd in the treatment of severe chronic cases caused the remedy to be extensively used by the profession, oftentimes with the happiest results. As a proof of the demand now for the herb is the fact that the price of the dried plant has advanced fully 150 per cent. during the past six months. The euphorbia pilulifera is not known to be a native of New South Wales, but grows well by cultivation. The Fiji Islands produce the best samples, and no doubt the inter-tropical islands throughout the whole of the Pacific produce the plant in great abundance. The therapeutical properties of the plant obtained in the Fijis are much superior to those obtained by that gathered in Queensland, the supply being practically inexhaustible.

The euphorbia pilulifera is a small, much-branched plant, with leaves from three-quarters to one and one-half inch long, which, when broken, are milky. It sometimes spreads over the ground not more than two or three inches high. The branches are hairy and usually of a reddish brown color. The leaves grow in pairs immediately opposite each other on the stem, and have a short leaf-stalk. The edges of the leaves are serrated, and are oblique, not being equally divided by the central rib. The fruit or seed are crowded together like pills or little balls at the junction with the stem of one of the leaves of each pair. The plant is a tender annual, and, like others of that class, the seed must be sown either naturally or artificially, so as to germinate in the early part of summer, in order that the plants may mature before the cold season arrives. In the neighborhood of Sydney, the plant matures and ripens seed in a little over four months. A Mr. T. W. Shepherd, of Milson's Point, Sydney, was for twelve years a martyr to severe attacks of bronchitis, and was completely cured by drinking the decoction made from the plant. Feeling a deep sense of gratitude at being restored to health, Mr. Shepherd made his case public, offering also to supply the herb and seed to any one requiring such for their own treatment. Mr. Shepherd has already distributed through post and otherwise some 3,000 or 4,000 packages of the dried herb and seeds, and has received a large mass of letters of thanks and testimony in favor of the efficiency of the euphorbia home-made herb tea, seldom a case of failure being reported. I have myself used the herb in some

200 cases of chronic asthma, bronchitis and diseases of the respiratory organs with the happiest results. In no single instance did it fail to relieve. In several cases of phthisis pulmonalis, I have used the euphorbia pilulifera with decided benefit to the patient, relieving the distressing cough, assisting expectoration, and calming by its anodyne powers. Alcohol fails to extract the medicinal virtues of the herb as efficiently as water. I have used alcoholic preparations, fluid-extracts, etc., but none I find equal in efficacy to the infusion or decoction prepared from the dried herb. The best formula is: Put one ounce of the dried stalks and leaves into two quarts of water, boil down gently to one quart, or between one quart and one quart and a half. Of this decoction, take a small wineglassful three times a day, and leave off when the attack has ceased. Experience has repeatedly proved that the decoction is immeasureably superior to any other preparation. The decoction is not only a capital tonic and preventive of accumulations of mucus, but possesses singular anodyne virtues. Further, it is not unpleasant to take. One gentleman who had been a martyr to asthma for years, and whose case was deemed almost incurable, found the greatest relief from using the decoction. Besides my own experience of the great virtues of this plant in the treatment of chest affections, cases are continually being reported from all portions of this large colony testifying to its merits.

Selections.

Glanders in Man.

PROCEEDINGS OF THE MEDICAL SOCIETY, DISTRICT OF COLUMBIA.

[Specially reported for Maryland Medical Journal.]

Regular Meeting, April 11, 1883.

THE Society met, with the President, Dr. A. F. A. King, in the Chair, Dr. T. E. McArdle, Secretary.

Dr. W. H. Taylor read a paper on GLANDERS IN MAN:

Mr. President:—I wish to make a few remarks on the subject of glanders, and to report some cases of the disease that came under my observation several years ago.

Glanders does not seem to run a very regular course either in the horse or man; indeed, the different forms of the disease presented symptoms so unlike as to have been treated for a long time as entirely separate and distinct diseases. It is now, I believe, pretty well established by experiment that one poison or virus will produce all the different forms of the disease known as glanders or farcy. In Reynolds' System, article Glanders, by Arthur and John Gamgee, the disease is described under four heads—Chronic Glanders, Acute Glanders, Chronic Farcy, Acute Farcy. Tellor makes the same division and considers the disease both contagious and infectious in horse and man; he describes chronic glanders as running the same course as the acute, only milder in form and slower. Ziemssen gives, as a cause of glanders in man, the eating of meat of glandered horses; the use of a handkerchief, used to cleanse the nostrils of a diseased horse, will, according to the same authority, communicate the disease through the broken skin or mucous membrane. It is also mentioned in the same article that man is subject to a subacute form not observed in the lower animals, in which form there is no discharge from the nose.

The poison of glanders is contained in the pus of the abscesses and boils of farcy and in the purulent discharges from the nostrils in glanders. In regard to the propagating principle of this disease, Dr. Lamb informs me that there has been discovered a bacillus peculiar to glanders, that has the property of producing the disease in a healthy individual. If this is so, I should think it would in a measure disprove the theory of the spontaneous occurrence of the disease, and also of its being infectious. I would not, from my own experience, consider the disease infectious but highly contagious. I have known a glandered horse to be in the same stable and work by the side of other horses for months without communicating the disease to them or to the men working or attending to him. I do not think this would be the case with an infectious disease.

The cases which I am about to mention are interesting as showing how the disease may be communicated, and its different manifestations in different individuals.

The first case I was called to see in the month of October, 1864, the account of which, as far as I am able to give it, is as follows: E. P. A., white man, aged thirty, married and having a family of healthy children; of medium height and weight, and fair muscular development; complexion, hair and eyes dark; had not the reputation of being a drinking man; no history of syphilis; occupation horse trader. I found this man half-dressed, lounging on a sofa in the common living-room of the family; he had a listless, stupid expression of countenance, and did not seem to be much interested in his own condition or in what was going on around him. His pulse was soft and compressible; tongue broad, white-furred and moist; breathing somewhat accelerated; general condition that of depression. An abscess had formed on the left arm above the elbow, which discharged a quantity of white, thick pus upon being opened. At my visit next day, I found an abscess on the right thigh, deep seated and not well defined; the skin over the swelling was white and shiny; quite a large amount of pus was discharged from this abscess. Several other abscesses formed on the limbs and discharged freely on being opened.

In spite of the large amount of suppuration, this man improved under tonics and stimulants; he was not at any time confined to his bed, and in a week's time after my first visit he removed out of the neighborhood and I saw him no more. I tried to get the subsequent history of the case, but all I could learn was that the disease in the course of six or eight months became acute and the man died. I learned from this patient's friends that it was a common practice with him to take the handkerchief he used to wipe his own nose with, to wipe out the nostrils of a horse he was about to trade, if there was any discharge from them, and in this way I presume he inoculated himself through the mucous membrane of the nose or mouth, as I saw no sore or abrasion of the skin, the disease taking the form of chronic farcy.

Case 2. A. M., white male, age 28 years; unmarried; occupation overseer on farm; employed in a bone mill at the time he was taken sick. He was a strong, muscular, well-built man of very temperate habits; never had a day's sickness in his life until this attack. Came to see me November 1st, 1865, in the evening; had been at work all day, but feeling badly had left off work earlier than usual. His breathing was rapid and labored; pulse exceedingly weak and thready; complexion dusky; distressed and alarmed expression of countenance; complained of feeling dreadfully bad all over and of pain in the right hand and arm. On the outside of the little finger of the right hand was a slight abrasion, with red streaks running from this over the hand and up the arm. He said he got the skin knocked off his finger and put some horse liniment on it about a week before; that the liniment had been used on the neck of a horse that had the distemper. I told him I thought he was going to be ill, and gave him a dose of calomel and Dover's powder and half a tumbler of whisky, and sent him home, telling him to send for me the next day if he was not better. He sent for me the third day, when I found him confined to his bed hardly able to raise his head from the pillow, so extreme was his nervous prostration. His respiration was blowing; pulse scarcely perceptible at the wrist; heart sounds weak; skin dry and hot; tongue dry and red; mucous membrane of nostrils dry and red; bowels constipated; complained very much of pains in the joints, especially ankle-joints. There was some pustular eruption on arms and legs.

All the symptoms grew gradually worse during the next week, about which time extensive sloughs formed on the outer side of the left arm and forearm and on the outer side of right leg, implicating not only the skin but the subcutaneous and muscular tissue also. About the end of the second week the slough separated, leaving deep suppurating surfaces that showed little disposition to heal; diarrhœa set in at this date and continued troublesome for a week or more. The articular pains that set in at the beginning continued with great intensity for three weeks; the suffering was very great; opium gave only slight relief. There was slight improvement in the symptoms at the end of third week, and in another week the improvement was considerable. In six weeks he was able to hobble around the house, still suffering from stiffness and pain in the ankle-joints. There was no swelling or redness around the painful joints. The ulcerated surfaces left by the sloughs closed up and convalescence was established, but recovery was slow and he never regained his former state of health.

I treated this case in the beginning with iron and quinine and alcoholic stimulants, then with iodide of potash in moderate doses, with tonic infusions, and finally cod liver oil, which greatly benefitted a troublesome cough that had remained after other troubles had been relieved.

Case 3. Wm. R., white man; aged 60; married; previous health and habits reported good; occupation farmer. I saw this case August 22d, 1867, and was surprised to see a man, looking so ill, walking about. His pulse was hardly perceptible; his breath panting; his countenance pale; eyes sunken; lips and mouth dry; tongue red, and edges of nostrils red; he coughed and expectorated a little purulent matter. He said he was taken sick about ten days before sending for me; was taken with a weak feeling and very severe pains in the joints; had no idea as to the cause of his sickness. There was a sore on the index finger of the right hand, caused, as he said, by the cut of a scythe. He said he had no diseased horses on the place, but I found two in his team that I thought were glandered. I saw this patient four days later; he was worse, and seemed so little inclined to follow my directions that I gave up the case. Mr. W. B., who owned the farm this man managed, subsequently informed me that a few weeks after I saw him he broke out with abscesses and boils and died. Mr. B. also said there could be no doubt about the case being glanders, and that the disease was taken from the horses I had examined, which had also imparted the disease to a pair of mules that died with acute glanders. For one year after the death of this man (Wm. R.) the house that he had lived in remained vacant; then another man moved in, but was there a very short time before he was taken with glanders and died, the disease presenting the same symptoms that it did in the case of Wm. R. This last man dying of the disease it was supposed got inoculated through a cut on his hand, by resting his hand on the side of the door where the first one was in the habit of resting his hand, which often had pus on it from his sores, he being very careless and smearing pus on everything around him.

Dr. Schaeffer had no doubt that glanders was often communicated by the careless use of the handkerchief in cleaning the nostrils of the horse and afterwards applying the same article to personal uses, and by other unsanitary measures. A running from the nose of the horse, however, is not always indicative of glanders, but may be caused by other diseases, and care should be taken in making a differential diagnosis. The continuance of the potentiality of the virus for so long a time as reported by Dr. Taylor makes this disease in that respect akin to Asiatic cholera. He would be inclined to doubt that the force of the poison would exist longer than a year.

Dr. May did not know that he had ever seen a case of glanders in the human subject. Persons practicing in the country, however, would be more apt to see cases of such a disease.

Dr. Morgan said he had seen one case of glanders in a man who caught it, of course, from a horse. The man broke out all over with pustules, and finally died a lingering death.

Dr. Lieberman, who had seen glanders in Germany, declared this to be a true case of that disease.

Dr. Franzeni said that an English hostler, with a previous history of glanders, presented himself at Providence Hospital some years ago with involvement of the right leg below the knee, and it was a question whether he was a proper subject for the surgical ward.

Dr. Taylor, in closing the debate, said the reason he had seen so many cases was on account of the number of horses of all kinds in his county during the war.

Revival of Blood-Letting as a Therapeutic Resource.

In the Paris letter to the *Lancet*, the views of two of the most prominent practitioners of that city with regard to blood-letting are referred to as follows: "Professor Peter, who was one of Trousseau's most fervent disciples, and present editor of his clinical work, employs venesection on rather a large scale, particularly in cases of apoplexy and epilepsy, in which Professor Trousseau condemned it altogether. At his clinical meetings, and in his lectures at the School of Medicine, Professor Peter teaches that, with all deference to his former master, he has found by experience that blood-letting, if judiciously employed, is invaluable in some cases, and apoplexy is just one of those in which it would be found useful. As in the days before the publication of Professor Trousseau's clinical works, Professor Peter practices blood-letting at the moment of the attack, with the hope of cutting it short, and he does so at a later stage with the view of facilitating the reabsorption of the clot of blood formed at the seat of the lesion, and to moderate the congestion in its neighborhood. On the strength of this theory, Professor Peter, at his clinic, lately bled a patient who was upward of sixty for an attack of apoplexy and hemiplegia of the left side, and he declared, at a meeting of the Medical Society, that this bleeding had been the means of saving the patient from imminent death. He employs general depletion even in the convulsions following apoplexy, with great benefit to the patient, as he had noticed that, notwithstanding the presence of a large quantity of albumen in the urine, the convulsions and the albumen had entirely disappeared after a small bleeding from the arm. Professor Vulpian employs blood-letting in its various forms in all cases of inflammation, and he has found it invaluable in peritonitis, whether from puerperal or other causes. At the Clinique d'Accouchement, Professor Depaul scarcely employs anything else in puerperal convulsions. He bleeds the patients largely and repeatedly until the most urgent symptoms are relieved, and he has frequently stated at the Academy of Medicine and at other medical societies that the results of the practice that he has carried out for more than a quarter of a century can bear comparison with any other method of treatment adopted by other physicians in similar cases; in fact, the mortality among his patients has always been considerably less."—*Med. Times.*

The Treatment of Spermatorrhea.

BY DR. H. COUPLAND TAYLOR.

OBSTINATE cases of spermatorrhea and frequent nocturnal emissions constantly come under the care of the practitioner. Too frequently the medical man consulted simply tells the patient that if he breaks off the pernicious habit of masturbation, which has probably originated his malady, he will soon quickly recover. But, in fact, in most cases, the habit has already been abandoned before he comes to seek advice, and these cases do not get well for months or even years afterward, unless proper measures be taken. Knowing that he has left off this bad habit, and that he nevertheless does not improve, his complaint being made light of by the regular practitioner, and being greatly depressed in mind, he seeks the advice of the quack, who is always ready to benefit by these cases. I will give an outline of the treatment I have followed, and which I have found most successful in several such cases. The treatment should be: (1.) Moral, (2) Hygienic, (3) Medicinal:

1. *Moral*—(*a*) The pernicious habit of masturbation, which has probably been the origin of the complaint, must at once be discontinued, or no good can result from any treatment. (*b*) The thoughts should be directed from himself by his having regular work and exercise. (*c*) The anxiety of mind which ensues should be allayed as much as possible and a happy state of mind instituted.

2. *Hygienic*—(*a*) The patient should have regular, but not excessive, mental employment, and bodily exercise in the form of walking, riding or outdoor sports and games. (*b*)

Cold sponging of the genitals night and morning for some minutes, or as long as can comfortably be borne, is a most important agent in giving tone to the relaxed organs. (*c*) The patient should have a hard mattress, and as little and as light clothing as possible at night. Care should be taken not to lie on the back, which may be prevented by wearing a knotted towel over the spine, or by some other device. (*d*) No quantity of liquor should be taken before retiring to rest, and the bladder should be emptied the last thing.

3. *Medicinal*—A mixture containing tincture of perchloride of iron and tincture of nux vomica should be given twice or three times a day; also a pill containing a fourth or a third of a grain of extract of belladonna with three grains of camphor should be given at first every night, and then every other night, immediately before going to bed. If these lines of treatment be adhered to, the patient, whether suffering from real spermatorrhea or simply from frequently returning nocturnal emissions, will steadily improve, and the emissions will occur less and less frequently, till, in the course of a few weeks, or possibly months—for a malady of long-standing (as this usually is) is never cured immediately—they will cease altogether, or only occur at such intervals as may be deemed normal, and in which there is no harm whatever.—*British Med. Jour.*

Inheritance of Cancer.

In the course of a paper on the Local Origin of Malignant Growths, read in the Section of Pathology at the last annual meeting of the British Medical Association, Mr. Jonathan Hutchinson observed: "It is needful to say a few words as to the inheritance of cancer in its bearings upon the doctrine of its local origin, since an adverse argument has been founded upon it. It has been urged with much plausibility that a disease which is capable of inheritance must be a constitutional one. No doubt, to some extent, this is true; but the argument must not be pushed beyond its legitimate scope. The laws of inheritance, as with property so with disease, concern conviction, and not origin of production. The inheritance of a fortune is a very different thing from its acquisition, and gives no clue as to how that may have been accomplished. The causes of cancer, as we meet with it in practice, may, perhaps, be usefully classed as three, senility of tissue, local irritation, and inheritance. Of these, only two can rank as true causes; the latter, although practically of great importance, is only a mode of perpetuation of that which the other two have originated. Senility gives proclivity, local irritation excites, and subsequently hereditary transmission may perpetuate. The facts as regards chimney-sweeps' cancer give, perhaps, the illustration of what I mean. Before this malady was practically suppressed by act of Parliament, I believe, as it often did in a family with proneness to suffer from soot-warts, and for soot-warts to degenerate into cancer, it increased in successive generations. Grandsons and great-grandsons were attacked at earlier ages, and with much greater frequency, than those who were new to the trade. Here, then, we observe the liability to a form of cancer produced, in the first instance, by a local cause, perpetuated and intensified by hereditary transmission. We witness the genesis of cancer, and see the shares taken by local irritation and inheritance, and how entirely secondary the latter is as regards the former. If we ask what it is which is inherited in the case of the transmission of cancer, probably the nearest approach to an answer which can be given will be to say that it is a peculiarity of cell-structure generally —not germs, not a blood-malady, but a special type of cell-organization, permitting with greater ease than in other persons the injurious influence of local causes. Even in the sweep whose forefathers have suffered from soot-cancer, the transmitted tendency still waits for the exciting cause, and the disease occurs, not in internal and, therefore, protected parts, but on the same part as it did in his great-grandfather, and under the direct influence of exactly the same cause. Not that I would for one moment doubt that, in some instances, the inherited proclivity may be so strong that it does not wait for the help of any exciting causes, but manifests its power in the production of a cancer which may be considered spontaneous. It is probably in this way that we ought to explain almost all cases of cancer occurring in very early life; and it may be the fact that in a few of these something more definite than mere tissue proclivity may be transmitted, possibly even germinal matter, especially in those cases in which the parent was the subject of the malady. Thus, then, although I fully admit that in the examination of our patients we must make large allowance for the influence of inheritance, I wholly deny that we can allow it rank as a true cause of cancer."—*British Med. Jour.*

The Action of Chloral, Opium and Bromide of Potassium.

In an article in the *British Medical Journal*, embracing a recital of experimental investigations, Dr. Sidney Ringer and Dr. Harrington Sainsbury make the following important observations on certain well-known drugs, after discussing the physiological effects of the agents mentioned in the title of their paper: "Clinically, the dangers of bromide of potassium and of chloral have been recognized, and thus in our text-books we find the statements that the presence of grave adynamic symptoms contraindicate chloral and bromide of potassium. Opium, on the other hand, in such adynamic states, frequently appears to lend actual support. The results of definite experiment we find to accord with the results of clinical experience, and the value of the former lies in that they confirm and, by their definiteness, must tend to enforce the teachings of the latter. The choice of a drug is, however, no simple matter; an advantage here may be outbalanced by a disadvantage there; and practical men may object that they would gladly give opium, but that the disordered stomach, blunted appetite, inactive liver, and torpid intestines more than outweigh the advantages of opium administration. This clearly is a matter for consideration in the individual case under treatment, and the decision will have to be according as one or the other element—asthenia, or derangement of the digestive, etc., powers—is most to be feared. These objections to opium on the one hand and chloral and bromide of potassium on the other hand, raise the question as to whether, in very many cases, a drug at present very extensively used, especially in America—viz., bromide of sodium—might not with advantage be substituted in their place. The salts of sodium generally contrast very markedly with those of potassium; for the chlorides, bromides and iodides of these two metals, the lowest figure would represent the potassium as ten times as active as the sodium. These precise numbers refer to action on the ventricle of the frog's heart (see *Medico-Chirurgical Transactions*, vol. lxv., concerning the action of the salts of potash, soda and ammonia on the frog's heart), but on all hands the evidence is forthcoming that, while salts of potassium are very poisonous, those of sodium are very slightly so. One of the marked points of contrast between the two sets of salts is to be found in respect of inhibition; potassium salts inhibit the frog's ventricle strongly, sodium salts scarcely at all. Here, however, we are considering drugs as to their cardiac effect, and in respect of this sodium bromide would rank far ahead of bromide of potassium, chloral or opium as to innocuousness. The objections holding for opium would not apply here, for sodium salts are generally very little disturbing to the tissues. With these advantages the general verdict of clinical experience is to the efficacy of bromide of potassium, and should this position be maintained, it is clear that bromide of sodium will be, in very many cases, the sedative above all others to be selected."—*N. Y. Med. Jour.*

Hypodermic Use of Sulphate of Morphia.

The following interesting facts in regard to the above we take from an article published in the *Virginia Medical Monthly* by Wm. H. Coggeshall, M. D., Richmond, Va. They are worthy the careful attention of every physician. —Ed. Med. News.

For those who prefer the use of Magendie's solution for hypodermic purposes, it is comparatively easy to prepare it in such a manner that it will remain good for months by simply adding one grain of salicylic acid or two drops of pure carbolic acid to the ounce of solution. I have kept a solution with carbolic acid in my desk for six months during a very warm summer, and at the end of that time have found no penicilium, algæ or other confervoid growths in it, and its hypodermic employment was followed by no more irritation or inflammation than if the solution had been freshly prepared. The quantity of carbolic acid in each injection is, of course, too small to give rise to any constitutional symptoms. The French members of the profession have, many of them, adopted Vidal's suggestion and practice, as have also, I believe, not a few physicians in our own country. Vidal found that the addition of chloral to a solution of morphia effectually prevented the growth of confervæ, and by such means claims to have preserved a solution ready for use for many months. He adds twice as much chloral by weight as there is morphia, and is positive that the addition increases the general pain-quelling power of the injection. Chloral solution alone will frequently produce serious local inflammation, but Vidal and his followers assert that no such result is liable to follow the use of the two salts together.

It is somewhat surprising to read the experience of Dr. Taylor, House Physician at Roosevelt Hospital, New York City, in 1882, who distinctly states that he has injected or seen injected at that institution many solutions full of confervæ, and by means of uncleansed needles, without a single sequela of inflammation or abscess resultant from either cause. This experience is so diametrically opposed to the general belief on the subject, that, even though it was published with the sanction of Prof. W. H. Thompson, I am inclined to think that the profession generally are content to err on the precautionary side, and we shall probably continue our practice of making extra effort to avoid the use of a confervoid solution as we have in the past.

Strange as it may appear in the case of so active a poison as morphia, there is a considerable diversity of opinion as to the size of the general injecting dose of the salt. It would seem that when occasional instances of poisoning occur from the injection of from one-eighth to one-third of a grain, it would behoove the conscientious practitioner to be content with the smallest amount possible to relieve his patient; but what are we to think of the physician who regularly uses from one-half to one grain at each injection? That such doses are used it is useless for any one who reads the medical literature of the day on the subject to deny; and the most rational explanation of the immunity from grand jury indictment that such practitioners have so far enjoyed is that an overruling Providence has kindly afforded them a special beneficent protection; for, as far as our present knowledge goes, the practice is opposed both to clinical experience and common sense. I believe it is the general practice to rarely use over one-eighth of a grain for an initial dose, save in exceptional cases, such as peritoneal inflammation, severe acute neuralgias, acute mania, and in cases of poisoning where a strong antidotal effect is desired.

The use of morphia combined with atropia is of late years becoming very common, and there are certain reasons why the combination is extremely valuable. Nearly all authorities agree that the addition of atropia to a morphia solution increases the hypnotic effect of the latter, that it prolongs as well as augments its pain-quelling power; that it prevents to a certain degree the constipating tendency of morphia, and that it diminishes the gastric disturbance and nervous prostration following the injection of that drug, but that both have the same effect upon the bladder in producing dysuria. It is only fair to mention here, however, that some few writers adopt the position taken by J. Hughes Bennett, who does not believe that the addition of atropia has any other effect than to increase the hypnotic and analgesic qualities of morphia, and Prof. T. Gaillard Thomas, of New York, will not allow that it has even that effect. From my own experience I am led to believe that the nausea and prostration usual after morphia injections is very much diminished by adding atropia to the solution. I add one grain of atropia sulphate to one ounce of Magendie, and, by the preservative means before spoken of, have no difficulty in keeping the solution always ready for use—the general injecting dose being five minims, equivalent to one ninety-sixth (1-96) of a grain of the belladonna alkaloid.

The question of whether a hypodermic injection should be locally given for relief of pain, or whether the same good effect is produced by an injection at some distant point on the body, is one on which doctors disagree exceedingly—Alex. Wood, Eulenberg, Behier, Mitchell, Keen, Morehouse, Chouppe and others believing fully in the doctrine of localization, while Anstie, DeRenzi, Charles Hunter, Luton, Bertin, Ruppaner, Bartholow, Kane and, I believe, the great majority of the profession adhere to the opposite view. Many of these latter, however, qualify their assertion by making some few exceptions in cases of neuralgia where any of the larger nerve trunks are subject to morbid action. In such cases it is the almost universal practice to deliver the injection as near the precise seat of pain as possible.

I do not know if the idea is entirely original with me, but I am inclined to the belief that the sudden relief from pain experienced when a hypodermic injection of morphia is made directly over or near the painful point in neuralgia is often due to the liquid vehicle of the injection, instead of the salt or alkaloid dissolved therein. Is it not possible that the water infiltrated into the cellular tissue, and even into the histological elements themselves, may produce a nerve impression which benumbs the pain for a limited time? Of course this sedation can only endure while the hydration continues; but before the histological elements or ultimate nerve cells have recovered from the shock of hydration, the morphia has entered the general circulation, and the analgesia is taken up and carried on in a different manner by another agent.

Another point of difference between experimenters is as to whether morphia injected into one portion of the body is taken up into the general circulation any more rapidly than when introduced into another—I mean, of course, when a local effect is not desired. Some, like Bartholow, are "unable to observe any difference in the rapidity of the effect as influenced by the site of puncture," while others agree in the main with Kane, who found "absorption from the groin and inner side of arm to rank first in point of rapidity; forearm next, leg next, abdomen next and the thick tissues of the back last."

There is also an extreme diversity of opinion among practitioners concerning the relative innocuousness of deep and shallow injections. One class of physicians consider that their only safety from inflammation and abscess (given a pure non-irritant solution), lies in deep deposition of the solution from half an inch to even more than an inch beneath the cuticle; while others announce that their worst cases of inflammatory sequelæ have been where the injection has been made too far below the surface of the body. I am of the opinion that with a perfectly pure solution and careful attention to the cleanliness of the syringe and needle, a hypodermic injection can be placed in any subcutaneous tissue with almost perfect security from serious inflammation—always provided, of course, that no blood-vessel or nerve is injured by the needle point. Care must be taken, however, that the injection is made *subcutaneously*, as an injection into the skin itself is almost certain to be followed by phlegmasia.

Occasionally an individual is found in whose cellular tissue an abscess is sure to follow an injection, without reference to his general state of health, and all precautions usually successful in preventing such results are entirely futile. What the predisposing cause may be producing such idiosyncrasy is something not yet explained, and, unfortunately, it is impossible to know, before giving the injection, whether or no a patient belongs to that class. The number of persons who can not receive a hypodermic injection without abscess surely following is greater, I think, than is generally believed, as I have seen nearly a dozen in twelve years of ordinary private practice.

During that period I have sometimes met with a patient whose dread of the pain of the needle's introduction was carried to so great a point that it was impossible to use the syringe, even when positively indicated, until local anæsthesia had been established, and although I have used an ether spray when I had one at hand, I have found an application of a bag of pounded ice, with a little salt, fully as efficacious on an emergency, as it lowers the sensibility of the part to a sufficient extent.

There is, of course, the same peculiarity as found in the action of most medicines, of different patients requiring different hypodermic doses of the alkaloid for relief of the same conditions of disease, and also receiving dissimilar effects from the same dose; but the majority of patients a physician in general practice meets with seldom require more than one-eighth of a grain to begin with, and that first dose, as a rule, has the worst effects—nausea, vomiting and nervous prostration often following the first small injection of morphia, even when the patient is not afterward affected in that manner by the same sized dose.

The occasionally distressing urticaria, following especially the first few injections in a patient, I have only been able partially to relieve by fomentations of very warm water slightly acidulated by the addition of vinegar; but I think that the potassium bromide administered *per orem* just before the injection has prevented its appearance in a few cases.

As to the hypodermic use of morphia in childhood, my own experience does not allow me to speak; but writers on the subject generally have mentioned its value in special cases, making a rule that the dose should never exceed one-sixteenth (1-16) of a grain, and should usually be exhibited in even smaller doses. The susceptibility of children to the toxic action of opium and its salts is too well known to be worth dilating upon.

I have noticed that thin, dark-complexioned persons of either Southern or Semitic races usually require more morphia to affect them hypodermically than the fresh, rosy, light-complexioned individuals, who are more common among our Anglo-Saxon race.

Another point to be regarded in the hypodermic administration of morphia is when circumstances require closely continued injections of the alkaloid, it is well to keep careful watch upon the respiratory organs; for, although the number of respirations have diminished in frequency to as low as four or five per minute, under the use or abuse of this salt, with ultimate recovery, yet it is seldom safe to allow them to go below ten per minute; and it may be remarked that if a patient in his senses calls attention to the fact of feeling something like "cobwebs" on his face, it may be understood that he has received all of the alkaloid he can safely be allowed.

In this connection it is necessary to call attention to a most important practical point in relation to the hypodermic employment of morphia. It may be laid down as a rule that *it is never safe to administer a hypodermic injection of this salt after a full dose of opium or morphia has been given by the mouth.* Several cases of death have undoubtedly occurred where a dose or doses of opium, or one of its salts, have been administered *per orem,* and for some reason, such as a condition of shock, the previous ingestion of a full meal, etc., stomach absorption has been delayed, and soon after a full subcutaneous injection of the alkaloid the previously delayed absorption has begun in the stomach, and the cumulative effect of the poison has been manifested, and fatal narcosis produced. One of the most noted instances of this was the case of James Fisk, Jr., in New York, January 7th, 1872.

When an injection produces more than ordinary inflammation at or around the point of entrance, I have used either hot or cold water compresses, as they were best borne by the patient, either proving amply sufficient, save in the abscesses of the idiosyncratic class, where general treatment for common suppurative tissue is called for, and in one or two cases of that class the list of local and systemic remedies required has proved a lengthy one.

It is a curious fact that several cases of death have occurred from hypodermic injections given on the head and face; and although every writer on the subject feels called upon to warn his readers of the dangers of such practice, few or none attempt any rational explanation of the matter.

Too rapid absorption of morphia injected subcutaneously gives rise to a peculiar train of symptoms that is agonizing in the extreme to the patient as well as unpleasant to the medical attendant to behold; and for such reason too many precautions can not be taken to prevent an accidental injection into a vein, especially if the dose of the alkaloid is at all large—although the size of the dose is not always required to be larger than normal to produce the most distressing results. The venous absorption brings about not what one would naturally expect—narcotism—but an instant overwhelming of the vital powers—what might be designated an excessive nervous and vascular shock. The instant the injection is made, there ensues first a peculiar metallic taste in the mouth, accompanied sometimes by an aching of every carious tooth in the head, and a most intense irritation and prickling is felt in the skin all over the body, which is apt to be suffused with a dark redness. Swelling of the subcutaneous tissues is extreme, particularly those of the hands and face, so that the patient's features are almost unrecognizable; the heart's action is very much increased, and a throbbing or "hammering" begins in the head, which increases until it is almost unbearable. The head-throbbing is succeeded by a congestive cephalalgia which, for the time, seems beyond endurance; but, fortunately, just before the apparently approaching bursting of the cranial blood-vessels, the severity of the symptoms begins to abate, and a few hours' rest restores the sufferer to the normal condition, less so much vitality expended.

This is the history of a severe non-fatal accident; but where the patient suffers from an organic cardiac lesion, or where there is a general want of strength in the heart-muscle, he will surely succumb under the symptoms related; and when morphia is thrown directly into the circulation in this way, it may be laid down as a rule, I think, that if the patient can be carried safely through the first ten minutes he is sure to recover.

The first case of an accident of this kind occurring in my practice I treated by stripping the patient to the waist, and dashing cold water over his head and spinal column, which resulted in rapid recovery. My other case was that of a lady, whose sex effectually precluded me from such violent measures, and for whom I used successfully the general supportive treatment that naturally occurs to any physician—diffusible stimuli, digitalis, cold to the head, ammonia to the nostrils, etc.

It is recommended by Bartholow, Kane and others to withdraw the needle once after introduction, and notice if blood flows freely; if so, there can be no doubt, of course, about the puncture of a vein, and another point must be sought for injection; but in case no more than a drop of blood follows the withdrawal of the needle, it may be again introduced: All this provided one is not treating a nervous patient.

Microscopy.

Abstracts.*

Bacilli in the Sputum of Phthisis.—Dr. Pfeiffer (*Berlin Klin. Woch.*) has instituted researches into the character and regularity of appearance of bacilli in the expectoration of consumptive patients. He finds that in proportion to the mildness or severity of the affection is the abundance or sparseness of the bacilli in the sputum. A suspected expectoration requires to be examined for several days in succession under high powers of the microscope before a conclusion can be arrived at. An alkaline solution is used to dissolve the sputa, while the bacilli is detected by gentianette or Bismarck brown dyes.—*British Medical Journal.*

How to Fix Aniline Dyes.

From a paper on Practical Pathological Work, by H. A. Reevis, F. R. C. S. E., the following on treble staining, is taken. All working histologists will be thankful for the discovery of a simple and effectual mode of setting the various beautiful aniline colors which have been much used of late years, but which do not stand the immersion in spirit and alcohol necessary to prepare them for mounting in Canada balsam, dammar or turpentine. Sections of fresh tissues or of those hardened in alcohol, Muller's fluid, chromic acid or chromic and spirit mixture, will answer for several of the methods to be described; but it is better to wash chromic hardened sections in water and soak them for not less than half an hour in methylated spirit before proceeding to dye them. Then it will be found that normal and pathological structures take on distinct double and triple and multiple staining.

Methyl anilin violet, and iodine, mulachite or methyl green combined give beautiful results. Aqueous solutions were first worked, but now an alcoholic mixture is used in the following way: Make a saturated solution of violet in strong alcohol and filter. Do the same with the green, leaving some granules in excess at the bottom of the vessel; this solution is a greenish-blue. Filter and add the violet solution to it, drop by drop, till the mixture is the color of Prussian blue, which soon occurs. If a large quantity be made for future use, add a little strong carbolic acid solution about three drops to the ounce of the solution. Filter about twenty drops into a watch glass and dilute with spirit and immerse sections for five to ten minutes; wash off excess in ordinary water, or better drain off on filter paper, and set in saturated solution of acetate of potash. This gives a good preparation for several weeks, but the dyes may be fixed by placing the sections for three to five minutes in a mixture of equal parts of a pure saturated aqueous solution of tannin, to which a little carbolic acid has been added, and distilled water. Then wash in water and transfer, for the same time, to a mixture of rather more than one part of tartar emetic and rest distilled water; wash and put in strong methylated spirit for five to ten minutes; draw off excess of spirit on filter paper, and put for five minutes in oil of cajeput, cloves, juniper, aniseed or turpentine, and mount after drawing off excess of oil—in Canada balsam or dammar. The tannin and antimony solutions should be filtered into a watch glass before using, as also should be the dyes. If this process be successfully carried out, very striking results are obtained. Connective and elastic tissue and cell protoplasm are stained violet; nuclei, nucleoli, young cells and leucocytes are greenish-blue. The nuclei of unstriped muscle-fibres and the nuclei of the sarcolemma of striped fibres are blue, and blood is rusty brown. The young cells of tumors, especially cancer and sarcoma, are greenish-blue. Sections of lymphatic glands are very pretty, the leucocytes being blue and the rest violet; and, if the tumor cells be present, they are greenish-blue and readily made out.—*British Medical Journal.*

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*Abstracted for The Microscope by Geo. A. Hendricks, Instructor in Anatomy, University of Michigan.

Bacterial Pathology.

THE *Lancet* furnishes the following comments: Among important observations which have been published recently regarding the relation of bacteria to disease, three—concerning syphilis, whooping-cough and dental caries—deserve especial mention. Aufrecht, Birch-Hirschfeld and others have published observations as to the occurrence of special organisms in syphilitic new formations, and some further investigations have lately been conducted by Dr. Morison, of Baltimere, at Vienna, in a clinique of Professor Neuman. In fifteen patients under treatment he found bacilli constantly present in the pus collected from the surface of the chancres and in papular syphilides. The organisms were present in the deeper parts of the excised papules, and in the blood which escaped from the exposed surface. The pus was collected by means of a wire previously heated in a flame, and placed on a cover-glass which had been heated in a similar manner. The pus on the glass was then dried, warmed at the flame, immersed first in acetic acid, and then in absolute alcohol. After a fresh desiccation, it was treated with methyl blue or with fuchsine. At the end of half an hour the specimen was immersed in a solution of nitric acid (1 in 6.) A microscopical examination then showed an immense quantity of cylindrical bacilli, readily distinguished by their intense coloration from the anatomical elements. The author does not venture to assert that these organisms are the same as those which have been described by Birch-Hirschfeld, as the specific organism of syphilis, but he adds that he has met with other bacteria in the pus of soft chancres, longer and more delicate, very much like the bacteria of anthrax but quite distinct from those which he has found in syphilitic productions.

In the sputa of patients suffering from whooping-cough, M. Burger has found organisms which he regards as pathogenic. They present the form of bacilli, some connected in chains, but most of them disseminated over the field, and giving the idea of micro-organisms in active process of segmentation. They differ from the leptothrix buccalis, the rods of which are both longer and largers and which occur chiefly about the masses of buccal epithelial cells. In order to demonstrate the supposed bacilli of whooping cough they must be colored by means of an aqueous solution of aniline and then with fuchsine or menthyl violet, using solutions which are not too concentrated.

From a series of researches on the part played by organisms in the causation of dental caries, M. Miller concludes that they can not be regarded as the primal agents. Decalcification by acids generated by decomposition, etc., leaves the tissues of the tooth porous, and on it the organisms, bacilli, and cocci, then develop. The bacilli can be traced into the ramifications of the dental canaliculi. They have no power on a tooth otherwise sound.

Gleanings.

Antiseptics in the Puerpera.—We have for some time past given our preference almost exclusively to Listerine as an antiseptic in the puerpera. We think it has *real* advantages over any other, while it certainly is much more acceptable to the patient. The objects to be attained in the use of vaginal washes after confinement are, first, to secure cleanliness; second, to arrest and prevent putrefaction; and last, but by no means least, to promote *early*, healthy action in the lacerated soft part—channels through which septic matter may be absorbed. The importance of this early reparative action can not be overestimated, as it is a well-known fact that with the healing process once begun, septic virus is repelled, in lieu of being absorbed; as is the case before healing begins, or when the abraded surfaces have taken on unhealthy action. We had long employed the carbolic acid for the purposes above enumerated, but observing disagreeable constitutional influences from its use, we selected the Listerine, which has proven a powerful non-toxic antiseptic, promptly promoting the reparative process, and substituting an agreeable perfume for a noxious odor.—*Prof. F. L. Sim, M. D., Memphis College Hospital, in Mississippi Valley Monthly.*

The Baltimore Microscopical Society held its third annual reception at Lehman's Hall on the 23rd ult. This Society has upwards of 100 active members and has the nucleus for a library and cabinet. Dr. Lewis M. Eastman is President, and Dr. E. M. Schaeffer, Reporting Secretary.

Book Notices.

A Guide to the Practical Examination of Urine. For the Use of Physicians and Students. By James Tyson, M. D., Professor of General Pathology and Morbid Anatomy in the University of Pennsylvania, etc. Fourth Edition. Revised and Corrected. With Colored Plates and Wood Engravings. 12mo. Pp. 196.

This is a most valuable little work for the use of students and physicians. No scientific physician, nowadays, would think of treating any serious case of disease, acute or chronic, without making himself, or having made for him by an expert, examinations of the urine in order to ascertain what features were exhibited in it; for it is recognized now, that derangements of digestion, modifications of nutrition, disturbance of the nervous system—in brief, abnormal conditions of every kind—bring about important changes in the renal excreta which afford important information upon the course of a disease and assist in determining the proper treatment. Some twenty-five or thirty years ago, Dr. Golding Bird published a work upon urinary analysis which was very popular, and deservingly so; but it is now way behind the times, and is probably out of print. The work of Dr. Tyson resembles it very much, being full in all details of practical importance, omitting nothing essential, but excluding everything that does not belong to the subject to which it is devoted. Like Dr. Bird's work, it will undoubtedly be in great demand; and the fact that it has reached a fourth edition is pretty conclusive evidence of its being already in great favor.

GOUT IN ITS PROTEAN ASPECTS. By J. Milner Fothergill, M. D., Member of the Royal College of Physicians of London, Physician to London Hospital, etc. "*Patres comederunt uvam acerbam et liberorum dentes stupent.*"—Ezech. xviii. 2. 12mo. Pp. 303. Detroit: Geo. S. Davis, Publisher. Price, $2.50.

Dr. J. Milner Fothergill is an English physician, probably as well known in this country, for his talents and learning, as he is in his own. He is the author of quite a number of medical works, all of which are authorities in the departments of which they treat. The fact that he is the author of a work is of itself a guarantee that it is of a high character.

Dr. F. considers that gout can be treated successfully only when the two following conditions are fulfilled: 1. An intimate acquaintance on the part of the physician with the natural history of gout in all its manifestations, so that he can devise wisely. 2. Unfaltering obedience on the part of the patient.

Gout, we learn from Chapter Third, is derived from "goutte," the French of the Latin "gutta"—a drop, because it was believed to be produced by a liquid which distilled, *goutte a goutte*—drop by drop, on the diseased parts. This name, which seems to have been first used about the year 1270, has been admitted into the different languages of Europe.

Dr. Fothergill regards the excess of uric acid as the great case of gout. He says that there are three factors present in the production of the gouty state due to gout-poison—otherwise uric or lithic acid: 1. Liver impairment, by which uric acid is formed in excess; 2. Kidney incapacity to excrete uric acid; 3. Defective oxidation which, in time, leads to the less oxidized form of albuminoid waste—uric acid being formed rather than urea. "Such, then, is a broad view of the genesis of gout. One factor being more pronounced in one case; another in another case; while in a third a combination of factors is in action."

An exceedingly brief synopsis of his plan of cure is, first, "the exhibition of certain agents which are stimulants or tonics to the liver, increasing its functional activity.

"Second. To render uric acid soluble, so that it may readily pass through the kidneys in solution in the urine.

"Third. To increase or augment the oxidizing processes when defective."

Although the ordinary practitioner in this country may not meet with many cases of gout, yet he will find the work highly interesting and profitable. A more interesting scientific work can not be found. The author is a good writer and carries his reader right along with him.

THE PRACTITIONER'S READY REFERENCE BOOK. A Handy Guide in Office and Bedside Practice. By Richard Dunglison, A. M., M. D,, Secretary of American Academy of Medicine, and author of several works. Third Edition, thoroughly revised and enlarged. 8vo. Pp. 529. Philadelphia: P. Blakiston, Son & Co. Cincinnati: R. Clarke & Co. Price, $3.50.

This is a work intended by the author to supply the busy practitioner of medicine, in a compact and tangible shape, information of a purely practical character, much of which is scattered widely through voluminous professional treatises or the inaccessible pages of medical periodicals. Besides this, original suggestions and precepts are offered for his guidance, which will, it is believed, meet many of his daily wants.

Among the very many things in regard to which information is given are weights and measures—those usually in use and of the metric system; the method of converting one into the other, etc. Then follow instructions as to the solubility of medicines in water, alcohol, ether, glycerine, etc.; abbreviations in common use; comparisons of thermometric scales. Under another heading we have the Hippocratic oath given in full; rules for practitioners—rules of medical etiquette; what the practitioner must learn of the patient; doses of medicines for children, adults, etc.; doses in the form of gargles, suppositories, rectal, vaginal, etc.; doses in collyria; atomized fluids in inhalations; and doses hypodermically. Then follow hints for prescribing; tables of differential diagnosis—syllabus of uterine inflammations; obstetric memoranda.

But we have not the space to enumerate the hundred important subjects in regard to which information is given. There is scarcely a conceivable subject pertaining to the practice of medicine and the treatment of diseases, that is not treated. In addition to what we have already mentioned, we can only mention that full information is given in regard to Dietetic Preparations and precepts; instructions in conducting a *post-mortem* examination; and the treatment of accidents, as foreign bodies in the eye, etc.; burns, scalds; suffocation, etc.

There is certainly no other work in the English language so replete with information important to the physician.

HANDBOOK OF THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE THROAT, NOSE, AND NASO-PHARYNX. By Carl Seiler, M. D., Lecturer on Laryngoscopy at the University of Pennsylvania, etc. 12mo. Pp. 295. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: R. Clarke & Co. Price, $1.75.

This is certainly a most convenient handbook upon diseases of the throat, nose, etc. Not only students in attendance upon medical lectures, but also practitioners will find it quite suitable to their wants. It is of a size that the former can easily carry it in their pockets and refer to at any time, while the latter need spare but a few moments with it in refreshing their minds in regard to any particular subject. It covers the field quite comprehensively of the department of which it treats, giving a complete and systematic account of the various diseases belonging to it.

It has been the aim of the author to make it serve as a guide to students of laryngoscopy in acquiring the skill requisite to the successful diagnosis and treatment of diseases of the larynx and naso-pharynx. In carrying out his object he has omitted the discussion of mere theoretical questions, and confined himself to the consideration of practical points. The work having reached a second edition shows that it has met with the approbation of the profession. Considerable improvements have been made to this edition. To the chapters on "Diseases of the Nasal Cavities" voluminous additions have been made. The number of illustrations has been materially increased, and other improved features added.

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Proceedings of the American Medical Association.

THIRTY-FOURTH ANNUAL MEETING,

Held at Cleveland, O., June 5, 6, 7 *and* 8, 1883.

FIRST DAY'S SESSION—JUNE 5.

THE annual meeting of the American Medical Association was held at Cleveland and set for the 5th of June. The central location of the city, its accessibility from all parts of the country, east and west, and the additional attraction of the lake, with its possibility of many excursions, caused a larger attendance than its friends had dared to hope for or had expected; in consequence of which fact and of the occurrence of the races, all of the hotels, large and small, were crowded much beyond their fullest capacity. Cot-beds were the order of the day for the late-comers, and even the more cautious ones, who thought themselves secure from having telegraphed a day or two before, found that this caution had come all too late. Rooms had been asked for by letter and by telegraph three or four weeks prior to the date set for the meeting, and the most meager accommodations were cheerfully accepted as a Godsend by anxious delegates. The Committee on Arrangements had secured the addresses of a number of private boarding-houses and places for lodging, and several hours were spent during the first morning in an endeavor to find a place where rest for the night might be obtained.

The meeting of the general convention was called together at Case Hall, whither men came from all parts of the city to take part in the opening exercises of the first day. Much time was lost here in the registration of delegates and permanent members, the registration being necessary to entitle delegates to a vote and to enable them to present their credentials. Owing to the delay caused by this necessary ordeal, many of the members did not reach the larger hall until long after the session had already begun, and their constant entrance and outgoing made the proceedings more noisy than would otherwise have been the case. The delegate or member, in presenting his name to be registered, was obliged to subscribe an affirmation, wherein he promised to faithfully adhere to the Code of Ethics as laid down by the American Medical Association. This well-chosen plan prevented any subsequent discussion as to the eligibility of members, who might otherwise have incorporated themselves with the Association, and it enabled the society to transact its business without any sectional wrangling or the slightest public display of party feeling, such as occurred at the last meeting at Minneapolis.

The exercises began with prayer, after which followed the introduction of the President, the venerable Dr. John L. Atlee, of Lancaster, Pa., who took his seat amidst hearty applause. The Association then listened to a cordial address of welcome from Gen. E. S. Meyer, of Cleveland.

The feature of the first general meeting was the address of the President, Dr. John L. Atlee. Regretting the absence of delegates from the New York State Society, and expressing the hope that the next meeting might see all the States represented, the President stated that medical subjects would probably be so well discussed in the special sections as not to require any mention from him, so that he had chosen instead to give to the society some of his experiences as a beginner in the profession. After sixty-three years of professional life, he had much to look back upon. Reminiscences were given of the men who occupied, in those days, prominent places as teachers in the school, such as Caspar Wister, John Dorsey, John Redmond, Nathaniel Chapman, Philip S. Physick and Joseph Parrish, all of whom were mentioned in terms of highest praise. Regarding the treatment of that day, Dr. Atlee said: "It was the time of calomel and the lancet. With regard to the one, I need not speak, but of the latter I feel well assured that the almost total disregard into which it has fallen has cost many valuable lives. From a very large experience in its use, I am satisfied, fully satisfied, that, if we depended more on the early use of the lancet in congestive and inflammatory states of many diseases, our practice would be more successful than it now is." Referring to the kindly feeling established between older and younger members of the profession, through the influence of the Code of Ethics, the Doctor said: "Had the adoption of the Code of Ethics no other result than this, it would have been an invaluable blessing to the profession. But it has accomplished more. It has put the seal of condemnation upon all 'isms,' and developed an *esprit de corps* that has enlarged the boundaries of our science and greatly increased the usefulness and social standing of the profession."

The address concluded with these words: "One word more and I have done, and I say it chiefly as a word of encouragement to the younger among you. At the close of a long life, one devoted unreservedly to the study and practice of medicine, I will say that, notwithstanding its uncertainties, its fatigues, its anxieties, its bitter disappointments, I am completely satisfied that in no other career can a man more fully accomplish his whole duty to God and to his fellow-men; so that when life here is ended it can be truly said of him as—be it said with all reverence—was said of Him whom we should all imitate, *pertransivit benefaciendo*—he went about doing good. Trusting that our proceedings may be both harmonious and profitable to us all, and thanking you again for the honor you have conferred upon me, I sincerely hope that the recollections we shall carry home with us will be both agreeable and lasting."

SECOND DAY.

Dr. N. S. Davis, of Chicago, Chairman of the Board of Trustees, then introduced a series of resolutions with reference to journalizing the transactions of the Association. The resolutions were those introduced at the last meeting. The Trustees stated that the journal would not involve the Association financially in any way, and believed that the publication of its proceedings in a medical journal virtually controlled by itself would prove more beneficial to the Association than the previous plan of an annual volume. The Trustees, after the previous meeting, had determined upon the following plan for the proposed journal. It should contain thirty-two columns of reading matter, should have a department devoted to original articles, a department containing editorial summaries of medical progress in the various departments, an editorial department proper, a department of correspondence, and one for miscellaneous news. A number of circular letters, sent to physicians in various States, with the details of the proposed plan, had elicited a very large number of favorable responses. Careful estimates of receipts and expenses had shown that there would probably be an annual revenue of several thousand dollars to the credit of the Association from the subscription lists and advertisements of the proposed journal; so that, at the last meeting of the Board of Trustees, all the members had voted to recommend the publication of such an Association journal, and, in addition, had recommended these propositions:

First—That the editor-in chief have entire supervision of the work, and might employ a clerk to aid in the business management.

Second—That, for assistants in clinical work, one or more gentlemen, specially qualified, should be selected to write up the progress in various departments, and that these assistants should receive a fair compensation for the services thus rendered. The editor should secure from all parts, at home and abroad, reliable correspondence. No advertisements of patent medicines, no endorsed cards, and no professional advertising, save such as could be admitted under the strictest ruling of the Code of Ethics, should find their way into the new journal.

The journal was to be published in Chicago, and was to bear the name of "The Journal of the American Medical Association."

Resolutions were submitted by the Board, asking for the adoption of their recommendations, and that they be directed to proceed with the publication of the journal at the earliest possible date.

An effort was made to have discussion postponed, but the resolutions, on motion of Dr. Brodie, were adopted almost unanimously.

Dr. McMurtry, of Kentucky, Secretary of the Board, announced that Dr. N. S. Davis, of Chicago, had been selected as editor-in-chief of the journal.

Dr. Davis then took the floor and stated that, after much thought, he had given his consent to accept the position. He asked the indulgence of the society for what might be the shortcomings of the new venture. The first number, he said, would probably be ready by the 1st of July. Dr. William Lee had undertaken the department of medicine. Dr. Atkinson offered his services to the new journal.

On motion of Dr. Bush, of Delaware, a vote of thanks was tendered Dr. Davis for the services he had already rendered as well as for his willingness to assume the duties of editor-in-chief.

THIRD DAY'S SESSION.

Dr. S. D. Gross presented the following resolutions with reference to nursing, which were adopted:

WHEREAS, good nursing is of paramount importance to the comfort of the sick and to the restoration of their health; and,

WHEREAS, the subject is one which strongly addresses itself to the common sense and kindly sympathy of every intelligent member of society; therefore,

Resolved, That this Association, fully recognizing the importance of the subject, respectfully recommends the establishment in every county town of our States and Territories of schools or societies for the efficient training of nurses, male and female, by lectures and practical instruction to be given by competent medical men—members, if possible, of county societies—either gratuitously or at such reasonable rates as shall not debar the poor from availing themselves of this benefit.

FOURTH DAY'S SESSION.

Dr. Garcelon moved a vote of thanks to the retiring President, Dr. John L. Atlee, for his labors in behalf of science and of the American Medical Association. A similar resolution extending thanks to the Secretary and Treasurer was presented and both were adopted.

On motion of Dr. Quimby, the Association presented a vote of thanks to the local physicians and citizens of Cleveland for their elegant and cordial hospitality.

Dr. Blount, Chairman of the Section of Diseases of Children, submitted his paper without reading. Referred to the Publication Committee. The reports of the Secretaries of the various sections were similarly referred.

Dr. Atlee, the President, said he had expected to have the honor of conducting to the chair the distinguished gentleman who was to succeed him, and whom he himself had designated as the Lænnec of America. He invited the Vice-Presidents elect to the platform, and bade the Association a kindly farewell, after which Dr. Lester, Second Vice-President, adjourned the Association until the next meeting, in Washington, on the first Tuesday in May.

Editorial.

Lord Byron's Foot.

[As there has been much curiosity and discussion in regard to the malformation of the feet of Lord Byron, the poet, from his decease to the present, we copy the following letter from the *Lancet*, of June 2, of London. The writer seems to be well informed in regard to the subject. In the *Lancet* are two cuts representing the deformity, which we are compelled to omit.—Ed. Med. News.]

To the Editor of the Lancet:

Sir—I have not yet had an opportunity of reading Mr. Jeaffreson's work on "The Real Lord Byron," but I have seen your interesting leader on the subject, and would venture to offer a few remarks on that portion of it which refers to the condition of his lordship's foot. It is not to be wondered at that a good deal of public curiosity should have been exercised regarding the poet's deformity. Byron was a handsome man, and a sensitive one, so that he naturally felt his defect very keenly, and took great pains to hide it from the observation of even his most intimate friends. As evidence of this you point out that during his last illness he had the blisters, which the doctors ordered, placed above his knees, because he objected to have his feet exposed. Bearing out the same idea is a description which I have somewhere read, given by one of his friends, of a stealthy visit made to the room in which the dead body of the poet lay, her curiosity prompting her to lift the covering and to gaze, for the first time, in awe, upon the twisted foot and shrunken limb about which so much mystery existed. The abnormalities of great men are often as much matters of observation as their excellences, and, if Byron has suffered more than many in this respect, he has himself in great measure to blame even in respect to his foot deformity. Mr. Jeaffreson holds it, among other restorations, to be an error that Byron had what is commonly called a club-foot, and describes the deformity as consisting of some elevation of the heel, with a little distortion inwards, which should constitute a slight form of equino-varus. Now, unless he has undeniable authority for his description, this can not be held to be the real one, for we have some very definite information upon the subject of a contrary kind. In the *Lancet* for the year 1827–28, vol. ii, there appears a series of articles on "Distortions of the Foot," by Mr. T. Sheldrake, evidently a well-known surgeon and specialist of his time. On page 779, he describes "Lord Byron's Case," giving with it an illustration of the foot, which I have here reproduced. His story of Byron's deformity is briefly this: When the poet returned from Scotland, he was placed in Mr. Glenny's academy, Dulwich (now the "Grove Tavern," Lordship-lane). He was also recommended to Mr. Sheldrake for treatment, but, by mistake, fell into the hands of "one Mr. Sheldrake, a trussmaker," who failed to do any good. Some years later, Byron, however, found his way to the proper man, but being near his majority and anxious to take his place in the world, he declined to undergo the seclusion and treatment necessary to effect a cure. In his article Sheldrake writes:

"When he had no artificial support, he stood upon the outside of his foot." The leg is also described as shrunken. Abandoning any attempt at a cure, Sheldrake nevertheless contrived "so that when he was dressed his legs and feet appeared to be so equal that common observers did not perceive any difference between them in the usual intercourse of society." These contrivances Byron, it seems, continued to wear even after he left England. Sheldrake's casts and descriptions have all the appearance of good faith and accuracy, although his illustration of Byron's case represents the left instead of the right foot, so that if he is to be relied on Byron possessed a veritable club-foot of the kind known as talipes varus. It may be interesting to note that in spite of his defect, Byron was capable of a great deal of exertion and agility upon his feet. "Byron's leap" at the Linn of Dee; his wanderings about the region of "dark Lochnagair," as described by himself in his "Hours of Idleness;" his ability as a cricket player, for while at Harrow his name appears as a player in one of the earliest recorded public school matches; his swimming frequently from Westminster to Battersea, as related by himself to Mr. Sheldrake, long before he swam the Hellespont—all go to show how much he enjoyed bodily exercises and how much he excelled in them. In a medical journal we have nothing to do with the process usually known as "whitewashing," but we are quite entitled, in medical matters, to get at and to hold by the truth.

I am, sir, yours faithfully, J. CHALMERS.

ISLINGTON, May, 1883.

THE HIPPOCRATIC OATH.—Every physician has heard of the "Hippocratic Oath," but a great many have never seen it. We copy it from the *Practitioner's Ready Reference Book*, by Dr. Dunglison, that our subscribers may have an opportunity of reading it and preserving it for reference. It is taken from the works of Hippocrates. The Oath was translated into English from the Greek under the title of "The Protestation Which Hippocrates Caused His Scholars to Make," by Peter Low, London, 1597.

THE OATH.

"I swear by Apollo, the physician, and Esculapius, and Health, and All-heal, and all the Gods and Goddesses, that, according to my ability and judgment, I will keep this Oath and this stipulation—to reckon him who taught me this art equally dear to me as my parents, to share my substance with him, and relieve his necessities if required; to look upon his offspring in the same footing as my own brother's, and to teach them this Art, if they shall wish to learn it, without fee or stipulation; and that, by precept, lecture and every other mode of instruction, I will impart a knowledge of the Art to my own sons and those of my teachers, and to disciples bound by a stipulation and oath according to the law of medicine, but to none others. I will follow that system of regimen which, according to my ability and judgment, I consider for the benefit of my patients, and abstain from whatever is deleterious and mischievous. I will give no deadly medicine to any one if asked, nor suggest any such counsel; and, in like manner, I will not give to a woman a pessary to produce abortion. With purity and with holiness I will pass my life and practice my art. I will not cut persons laboring under the stone, but will leave this to be done by men who are practitioners of this work. Into whatever houses I enter, I will go into them for the benefit of the sick, and will abstain from every voluntary act of mischief and corruption; and further, from the seduction of females or males, of freemen and slaves. Whatever, in connection with my professional practice or not in connection with it, I see or hear in the life of men which ought not to be spoken of abroad, I will not divulge, as reckoning that all such should be kept secret. While I continue to keep this Oath inviolated, may it be granted to me to enjoy life and the practice of the Art, respected by all men, in all times! But should I trespass or violate this Oath, may the reverse be my lot!"

"The circumstance that the novitiate in the art is interdicted from the practice of lithotomy shows that this operation in antiquity was always practiced by a class of operators separated from the general profession, and that the regular members of the latter never meddled with it on any account. Hence the operation is never mentioned in the whole compass of medical literature. Avenzoar pronounced it to be an operation which no respectable physician would witness, much less perform."

Mistaking a Case of Smallpox.—A few weeks ago the reporters of the daily papers of Cincinnati, who will not stop for anything in order to get up a sensation, succeeded in producing considerable excitement because some two or three prominent physicians of the city failed to recognize a case of smallpox during life in consequence of the obscurity of the symptoms. The patient, a young lady who was in attendance upon a musical academy of the city, while sick, was nursed by some fellow-students, one of whom afterward contracted the disease and died. After the young woman had died, her body was placed in a coffin and sent home to Illinois. On its arrival, the coffin was opened and funeral services were held. A number of the home friends contracted smallpox soon afterward, and one or two died. From the symptoms which were present in the case, the physicians during life pronounced the disease *Purpura Hemorrhagica*. It was an unfortunate affair, as a number of friends, from the failure to recognize the disease during life, were led to expose themselves and contracted smallpox. None lamented the error in diagnosis more than the physicians themselves who were in attendance, but they seemed to think that other physicians would have done the same. They were all men of experience, who had treated many cases of smallpox before this one. One of them informed us that not a vesicle or pustule at any time was seen on the person of the young woman. The proof that it was a case of smallpox was the contracting of that disease by a number of individuals who had been near the body, either before or after death.

As an evidence of the difficulty sometimes attending the recognition of smallpox during life, we append a letter addressed to one of the physicians who was in attendance upon the case we have just detailed, and published in the *Cincinnati Enquirer*, by two members of the present Faculty of the Medical College of Ohio. We omit all names except the name of Dr. James Graham, mentioned in the body of the letter, who is now deceased. Dr. Graham was well known as an able and accurate diagnostician, and consequently we do not think any unfairness will be done him in not suppressing his name. We omit the names of the others at our own instance, for the reason that we consider the mentioning of their names as unnecessary.

"CINCINNATI, O., May 28, 1883.

"DEAR DOCTOR: We desire to express to you our sympathy for the painful criticism to which you have been subjected in the daily press for having mistaken a case of purpura variolosa for a case of purpura hemorrhagica, and believe that the report of an almost similar accident which occurred in the hands of three of us, Dr. Jas. Graham and the subscribers, which you may use as you see fit, will at least divide the responsibility among a greater number.

"In this case, which happened seven years ago, the symptoms were so vague and ill-defined that we felt constrained to regard it as an anomalous case of typhoid fever, and so reported it in the death certificate. On post-mortem examination the lesions were found more like that rare form of disease, purpura variolosa, and we determined to report it as such to the Academy of Medicine of this city. The full account of this case, with the subsequent discussion, is detailed in the *Cincinnati Clinic*, July 15, 1876. We subsequently learned that the body had been in the mean time shipped to some town in the interior of the State.

"It is, of course, useless for us to speak here of the difficulties which often surround differential diagnosis in rare and obscure forms of disease, and of the hesitation which the physician often feels in mentioning the name of a malady which may cause unnecessary alarm (a hesitation which led us to refrain from mentioning the character of this case in the household), to say nothing of the delicacy which sometimes restrains him in his examination. Those who deride the science of medicine in such a case as this are best answered by a reminder of the fact that, had it not been for the discovery of vaccination, worked out by a general practitioner, our city would probably at this moment be deserted of all its inhabitants who could get away, the remaining population consisting of those unable to leave and the physicians.

"We trust that you may take comfort in this evidence of human fallibility, which we share with you in the celebrated aphorism of Voltaire: 'Only the charlatan is always certain.'"

APROPOS OF THE BACILLUS OF TUBERCULOSIS.—Klebs against Koch (editorial *Progres Medicale*).—In the *Archiv. f. Experimentelle Pathologie u. Pharmacologie* (Bd. 16, Heft 5 u. 6), Prof. Klebs combats the opinion of Prof. Koch, who attributes tuberculosis to the invasion of bacteria having the form of rods (bacillus of tuberculosis). The eminent pathologist asserts:

1. That the bacilli of Koch are not the sole micro-organisms that are encountered in tuberculosis.

2. That there are found in this disease granulous masses which are no other than micrococci, organisms that color in a manner different from the bacilli, and have for this reason escaped the observation of Koch—and it is to these that the disease must be attributed.

3. That Koch has nowhere demonstrated that his bacilli are organized beings; that it is not impossible that they are anything more than crystals, for Koch attributes no movements to them and has not observed their development by spores, which is indispensably necessary to establish their organized nature.

4. The culture experiments of Koch are faulty therein that it can not be affirmed that the tuberculous inoculation should be attributed to the organisms cultivated by him; for he has not taken the precaution in his researches to isolate them from tuberculous organs.

5. That Koch must first demonstrate by inoculations that the residue of culture experiments can not produce tuberculosis; he would then be justified in concluding that the bacilli are the sole cause of the malady.

6. The bacilli are not always found in tubercles.

7. That the researches of Lichtheim and those of Cramer, who encountered the bacilli of tuberculosis in the feces of healthy men, teach us that the diagnostic value of these bacilli (found in the sputa of phthisical patients) is not so great or real as Koch and his partisans pretend.

8. That there are other substances that are impressed in the same way as the bacilli by aniline colors.

We see thus that Klebs is not alone in accord with Spina (8), but goes still further in his opposition to the bacillus of Koch.

"THOROUGH" REMOVAL OF CANCER OF THE BREAST.—At the annual meeting of the Medical Society of the State of Pennsylvania held this month, Dr. S. W. Gross recorded his results from the "thorough" removal of cancer of the breast. The operation consists in amputation of the mamma with the whole of the covering skin and fascia, and the fascia over the pectoral muscle, together with exploration of the axilla and complete removal of the lymphatic glands if any of them are found to be infected. Dr. Gross has operated in this way twenty times; in one he was unable to remove all the obviously diseased tissues, in three others he had not been able to obtain any subsequent history. Of the remaining sixteen cases one died, one was incomplete, in seven recurrence within a year ensued, and seven cases were considered to be successful, for they had remained free from recurrence for periods ranging from eleven to fifty-six months, or an average of over twenty-seven months. Three patients were shown to the Society, one of whom had been free from recurrence for four years and eight months, one for three years and eight months, and the third for sixteen months. In the second of these cases the axillary glands were not removed, in the other two they were. The cicatrices were soft, pliable and freely movable.

IN the way of recognizing their piety, we presume, Dr. John A. Murphy, of the *Miami Medical College*, of this city, and Dr. W. W. Seely, of the Medical College of Ohio, were recently elected by the members of the Second Presbyterian Church, of Cincinnati, deacons of that congregation. Of course, it will be quite proper, in the future, to call the gentlemen by their titles. We know that *Deacon Murphy* and *Deacon Seely* will sound somewhat oddly at first, but time will soon correct all oddness in the sound, and make the new title, in each case, as euphonious as that of doctor. The ordination ceremonies were very impressive—the Rev. Dr. Eells officiating.

We congratulate the gentlemen, as we presume all their friends do, on their new honors.

MESSRS. PARKE, DAVIS & CO.—There is no house in the world engaged in the manufacture of all kinds of medicinal preparations more reliable than the house of Parke, Davis & Co., of Detroit. They have met with considerable opposition from rivals, but they have overcome all. When physicians purchase their preparations, they know they are obtaining articles that are just as they are represented to be. This house sends to all parts of the world for new medicinal agents as soon as they hear of them.

Their patronage is very large, but they deserve to have it larger.

THE NINTH ANNUAL MEETING OF THE TRI-STATE MEDICAL ASSOCIATION will be held in Indianapolis, September 18, 19 and 20. The work is already far advanced and the title of each paper should be sent in at once. Papers must not exceed twenty-five minutes.

It is also the rule that each physician who registers must be a member of a local or State society in good repute. All such are invited.

Notice of papers or cases to be presented may be sent to the Chairman of the Committee on Programme, Dr. J. L. Thompson, Indianapolis; to the Secretary, Dr. G. W. Burton, Mitchell, Ind.; or to the President, Dr. Wm. Porter, St. Louis.

MATRIMONIAL.—It is rather a hot time of the year for any purpose, especially for getting married; yet our friend, DR. JAMES G. HYNDMAN, has taken to himself a wife.

Our card informs us that the interesting exercises took place at Martinsville, Ind., June 20, 1883—the name of the young lady being MISS MARY E. MITCHELL, of that place. The high contracting parties, at present writing, are enjoying themselves on a wedding tour, and will be at home after July 1.

The good book says, "*Non est bonum esse hominem solum,*" and Dr. Hyndman is one who does not wish to fall short in anything. In taking to himself a wife, he will have undoubtedly the best wishes of all his friends. He may feel assured that we "wish him much joy," prosperity and long life; with such collateral blessings as Providence may bestow upon him and his beautiful and accomplished wife.

BOOK STORE.—Physicians and medical students will find no more reliable bookseller than Mr. Alfred Warren, southwest corner of Sixth and Central Avenue. He keeps constantly on hand a full stock of medical books of the latest editions at low prices. He sells to physicians and students at a liberal discount. Besides medical books, he has works in general literature, history, biography, poetry, etc.; also, stationery of every description. Call and examine his stock.

WE learn that Prof. Wm. C. Quinn has resigned his chair in the *Chicago Medical College*, and has accepted the Chair of Practice of Medicine in the *College of Physicians and Surgeons*, of Chicago.

CHANGE OF ADDRESS.—Dr. L. L. Crawford has changed his address from Alma Centre, Wis., to Broken Bow, Custer County, Neb. Correspondents will please note the fact.

DR. THEOPHILUS PARVIN has been elected to a chair in one of the medical colleges of Philadelphia. It seems that the East is compelled to look to the West for talent.

OBITUARY.—It gives us much pain to announce the decease of Dr. A. S. Todd, of Wheeling, W. Va., which occurred about the 1st of last month (May). He was quite an aged man, having been in the practice of medicine nearly sixty years. He was a subscriber of the MEDICAL NEWS almost from its commencement, and we not unfrequently received letters of encouragement from him, for which we felt very grateful.

Of his virtues, which, we understand, were many, while his faults were very few, we will let those speak who were his daily associates, and can speak from personal knowledge.

"The physicians of the city of Wheeling met on the evening of May 4th at the county library for the purpose of taking appropriate action on the death of Dr. A. S. Todd. Dr. John Frissell was called to the chair and Dr. Jepson was made Secretary. On motion of Dr. Hildreth, a committee consisting of Drs. Bates, Sr., Hildreth and Hazlett was appointed to draft resolutions. They reported as follows, and the same were adopted:

"WHEREAS, It has pleased Almighty God to remove by death Dr. Archibald S. Todd, therefore

"*Resolved*, That it is with profound regret that we part with an aged and esteemed professional brother, being the oldest practitioner in the city, if not also of the State, who, for nearly sixty years, has led a life of self-sacrifice and labor for the welfare of the sick and afflicted. He loved his profession, and was recognized by the public and those who knew him best as one of the most able and careful practitioners of the State. He was a member of the American Medical Association at the time of his death, and has been prominent in the organization of all the medical societies of the city and State, and constantly interested in every means intended to advance the medical profession.

"*Resolved*, That as a citizen he has sustained an honorable and useful character, identifying himself with the enterprise, growth, improvements and councils of this city.

"*Resolved*, That he was pre-eminently a Christian gentleman, whose life was marked by kindness and benevolence, being fruitful in every good work.

"*Resolved*, That a copy of these resolutions be sent to his bereaved family."

A NEW DISCOVERY.—Mr. Ernst L. Zeushner, Electrician, No. 189 Vine Street, Cincinnati, claims to have made an important discovery in science, which will bring about a revolution in old scientific beliefs. He has issued the following manifesto:

To all friends of Natural Science regarding the new discovery:

Force is matter produced by polaric contact of molecular matter. It is called

"MAGNETISM."

Science has searched in vain, since human existence, to discover this invisible creating force. It was, however, discovered in 1879 by Ernst L. Zeuschner, and registered with the Librarian of Congress. Washington, on the 30th of August, 1880, but, feared by the Owls of the old scientific school as not suitable to them, like the Galilean discovery of the revolution of the earth, because it throws directly aside all incomprehensible terms in their dogma, as affinity, gravity, electricity and many other vague terms, and substitutes for them the natural magnetic force as the sole prevailing Force in the universe.

P. S.—For further information see pamphlets in English and German, or apply to ERNST L. ZEUSCHNER, 189 Vine Street, Cincinnati.

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Original Contributions.

Surgical Fracture of the Femur.

BY G. P. HACHENBERG, M. D., AUSTIN, TEXAS.

A short time after the close of the late civil war the Surgeon General of the U. S. A. directed to be made to him army surgical reports of cases that might be of sufficient importance to incorporate into the Medical and Surgical History of the War of the Rebellion. Of the number of cases I reported, whether from some oversight or of a disapproval of the surgical treatment of the case, my report of a surgical fracture of the femur did not make its appearance in the work among the operations of the lower extremities.

As the case was one of a formidable nature and attracted at the time the attention of surgeons of both armies, I deem it of sufficient interest to place it on record, even at this late day.

In 1862–3, when in winter quarters at Buckhannon, W. Va., some of the surgeons of the brigade directed my attention to a Serg't Phillips of the First Virginia Infantry, who was shot with a musket ball through both thighs, fracturing the right femur a little below the lesser trochanter, the ball being lost in the same limb. The case was generally considered as a suitable one for amputation at the hip-joint. As I had performed that operation a few years previously in civil practice, the patient was advised to place himself under my care. Following this advice, he sent for me, requesting my services. Although he was confined at his own home about fifteen miles outside of our lines, from the general interest that was felt in the case I concluded to run the risk to reach him and perform the operation. It was strictly a volunteer duty, as the patient was never officially assigned to me.

By the aid of a guide, I reached my patient in safety. I was there met by a neighborhood physician. I found the patient in bed, much emaciated, with the right thigh enormously distended, and here and there perforated with fistulous openings. The ball passed through the left upper thigh (inflicting a wound that had healed up when I saw him) and penetrated the right thigh at Scarpa's triangle and fractured the femur.

He was wounded in a skirmish with the enemy nine months before the time I saw him. He fell into their hands and was examined by quite a number of their surgeons, but from the unfavorable prognosis of the case no operation was attempted. His friends finally got permission to take him home, and to do so he was carried one hundred miles on stretchers. Not long afterwards he was taken to a United States Hospital at Wheeling, Va. Here, according to the patient's statement, he was examined by more than fifty visiting surgeons, and they, like their Confederate *confreres*, deemed it best not to operate on him, and under unfavorable prognosis he was strictly held under a surgical conservation. He gradually got weaker as the suppuration and inflammation extended itself in the leg, and was finally permitted to return to his home.

Taking into consideration the condition of the patient, I concluded not to amputate, but to enter into a dissection in search of the ball. By a careful palpation I detected an ill-defined fluctuation, anterior to the upper third of the thigh. It took in a space nearly the size of my hand. The patient was placed under the influence of chloroform. I made here an incision in line with the femur into the deep faciæ, and entered a large abscess. I carefully removed its contents, which was about a pint of sanious pus and a few spiculæ of bone that had exfoliated from the main bone. With my fingers I carefully explored the parts in search of the ball, and finally passed my finger into a sinus that terminated on the outside of the femur, where I detected by the touch a sharp projection of the ball. From the lower end of the longitudinal incision I made a transverse incision to the right, about six inches long. This gave me ample room to reach the ball and the necrosed bones. These incisions had necessarily to be extensive to correspond with the morbid enlargement of the limb. I applied bullet forceps to the ball and made firm traction for its extirpation. But it was os firmly imbedded in ossification that I could not move it in the least. Persisting in my efforts to get it out, I broke and bent two bullet forceps in the attempt, which were all the instruments of the kind I had with me. Here a painful crisis presented itself. There was but one question at issue, and that was that the ball and all foreign material in the limb had to come out, and owing to the condition of the patient very quickly too.

To meet this terrible emergency I placed my left knee as a fulcrum under the hip-joint of the patient, or rather somewhat a little in advance of it, and struck the knee of the affected limb a sharp, firm blow, causing a fracture of the bone at the place where the ball was imbedded. This surgical fracture was easily effected at the proper place owing to the presence of the ball and necrosed bones. I was now able to pick out with my fingers the ball, which was in two pieces, very much flattened out, and with the same facility removed all necrosed bones. I cleansed with care the entire wound with tepid water and closed it up, as the patient emerged from the influence of the chloroform, thus giving him more or less pain to favor reaction. Drainage from the cavity of the abscess was established. And to the outside of the wound applied light compresses, saturated with a weak solution of Labarraque's Disinfecting Liquid. The shock that followed the operation gave us much anxiety. For many weeks he was in a most critical condition, but being kept under a stimulating and sustaining treatment, finally convalescence was established, though long and tedious.

The cure terminated with considerable shortening of the limb, as might be expected both from the original gun-shot fracture and the subsequent surgical fracture, that was treated by position and not by splints. As I left the patient in an extremely exhausted condition, barely alive, so to speak, I advised the attending doctor not to resort to splints but to maintain the limb in the best and easiest position he could with the least tax to the patient. It was the life of the patient we struggled to save, and not the limb at the risk of life.

How Can We Obtain and Preserve the Best Eyesight and Hearing?*

BY LEARTUS CONNOR, A. M., M. D., OF DETROIT.

Were this inquiry made of every living, rational adult, and every answer recorded, we should be able to classify them thus:

(1.) The great mass of persons would say, "We neither know nor care, 'tis enough that we now hear and see so as provide for our present wants."

(2.) Another large class would reply by telling us the anatomy and physiology of the eye and the ear, and by recounting the connections of their activities with the education, with the pleasures, and with the profits of social, business and moral relations.

(3.) Lastly, a considerable number who have lost in part or whole one or both of these senses, would give us a very practical and very earnest injunction that, "with all our getting, we should get the best eyesight and hearing and so care for them that they may serve us while life lasts."

So little is the importance of these senses realized that even the beasts of burden are better treated than are the eyes and ears of human beings. Horses and oxen are not generally compelled to work until they have attained maturity. Then care is ever taken that they be worked only under such conditions as shall keep them strong and well. But human eyes and ears are put to severe labor long ere they are fully developed. Then the conditions under which they very often labor are such as directly to produce weakness, actual disease, or early destruction.

A complete answer to our query is impracticable in a brief paper suited to the present occasion. But a few suggestions of a practical character may prove helpful to some who desire to make the most of their special senses. The form in which we shall try to make these suggestions is such as to be within the easy comprehension of every intelligent person.

First. We can only obtain and preserve the best eyesight and hearing "by acting as if they were of more value than any other things on earth."

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*This paper was illustrated by models of the eye and ear, and much of it was a verbal address.

Whatever theoretical views are held, practically the mass of the people regard the best eyesight and hearing as entirely secondary to other considerations. To illustrate: The baby cries from earache. If hearing were regarded by the parents as of the first importance, they would have the case scientifically examined and treated by the most approved modern methods. But as a fact, what do they do? Usually they fill the ear with oil of some sort, with laudanum, with solutions of camphor; they apply poultices of onions, of bread and milk, potatoes, etc., etc. If, after such abuse, the ear begins to discharge, they adopt some ignoramus' notion that if the discharge be stopped, it will go to the brain and the child will die. Hence they cherish this offensive flow from the child's ear until the age of manhood or womanhood is reached. Meantime, the whole life of the child has been darkened by the shadow of this offensive discharge from the ear, of its attendant deafness, and of the inevitable chronic blood-poisoning, and by the constant danger of death from the extension of the inflammation to the brain. How great this shadow is, only they can tell who have been doomed to such a dreadful experience. Why, during all these years, did not the parents take the trouble to have the case scientifically investigated and cured? Simply because they regarded other things as of more importance than this ear. Here and now it does not matter whether these things were money, or time, or trouble, or simple ease. The effect was the same, the ear was destroyed, it was made a fountain for the outflowing of most posionous liquid, offensive alike to the child and all its associates. The physical, mental and social life was dwarfed and distorted, simply because the parents did not regard the ear of their child of so great importance as some other things.

Again, at the first teething a child's eye begins to turn inward. This lasts only for a little time, but gradually it continues longer and longer until it is permanently located so that there can be no distinct vision from the affected eye. It is apparent to all that the eye is out of order. Well, do the parents at once secure for the child the best knowledge and skill that is to be had? Not at all. Usually matters are allowed to continue until one eye has become almost, if not entirely, blind from simple non-use. Possibly now, if they find it will not be much trouble, or that an operation can be done for nothing at some free surgical charity, they will have the case investigated and use some of the measures proposed for the relief of the deformity. Apparently there is little regret that one eye has been entirely lost by simple neglect. Clearly these parents did not regard the eyesight of their child as of the first importance. Illustrations of our proposition are simply numberless. While they exist it is absolutely certain that we shall never have the best possible eyesight or the best possible hearing until we come to regard the value of the special senses as more important than money, than ease, or pleasure, or even ambition, or anything else. I do not affirm that it may not be possible for circumstances to arise in which it may not be best to sacrifice the eyesight or the hearing for the attainment of some other end. But I am quite sure that in the end life will be the most satisfactory to such as retain the integrity of the special senses equally with that of the other organs. In its relation to these organs a sound physiology shows that the best eyes and ears mean the very best health of every part of the body and mind. Hence there is no need to sacrifice other parts of the body to save the special senses. The sacrifices of the eyes and ears are rather made in favor of some work or play, or some pleasure, or some vice that harms other portions of the body at the same time that it does the eyes and ears.

In the interests, not only of the eyes and ears, but in the common interest of the entire human body, we must affirm the following proposition: If any calling, if any pleasure, if any work, if any ambition, or if any other thing call for the sacrifice of the health of the eye or the ear, better save the latter at the expense of the former. At any rate, only by following this course can the best eyesight and hearing possible for us as individuals be obtained.

Accepting this principle of action, what specific measures will we be called upon to follow?

A.—As soon as a child is old enough to be given specific tasks to perform, we will have his eyes and ears carefully examined. This examination must be by a competent person. It will determine whether these organs have any specific defects. If there be no defect, then, in so far as these organs are concerned, the child may be permitted to enter upon any course of study or life that its circumstances and opportunity permit. But, on the other hand, should either organ be found very defective, certain callings must be excluded from the future of this child. Thus, if the ears were defective in the power of appreciating tones, time, and rhythm in different sounds, surely it were useless to waste time and money in the vain endeavor to follow a musical career. On the other hand, the ears of a certain individual may be found to excel in these and other qualities, and hence in these respects he may be fitted for a success as a musical artist. The eyes may be found defective, in the shape of the eyeballs (too flat antero-posterior, too convex from antero-posterior, or too flat from side to side). The lenses may be partially clouded, the proportion between the circular and longitudinal fibers of the ciliary muscles may be out of harmony with the rest of the structure of the eye. The muscles outside of the eyeball may be disproportioned to each other and to the ciliary muscles, or color blindness may exist. On the other hand the eyes may be found, humanly speaking, perfect. Evidently a career based upon a perfect eye would fail of its best success, were the eye imperfect.

The number of wrecks of lives from this cause that appear before those conversant with the diseases of these organs is simply astounding The worst feature of these wrecks is that the cause of the wreck is not discovered until the damage is done, and it is too late to enter upon another course of life with success.

If it be known exactly what defects exist in the eyes at an early period of life, when school education begins, the task laid upon such eyes can be proportioned to the ability of the child to bear them. Thus out of a class of fifty children there may be ten with more or less defective sight and hearing. Certainly these will be very likely to break down sooner or later in the strain placed upon them by the ordinary duties incident to ordinary school life. It is scarcely fair to lay all the blame of these wrecks upon the machinery of the schools. Given a perfectly sound body and perfectly sound special senses, and but few would suffer as to their eyes or ears even in the defective school machinery that now exists in our public school system. By all means make this machinery so perfect that none will suffer in any degree. But do not lay to this machinery blame that properly belongs to originally defective eyes and ears. We suggest that a proper system of education would examine every applying pupil in respect to the special senses of seeing and hearing before admission to the school. Those whose defects could not be remedied by artificial measures might be taught in special classes. If it were possible to correct the natural defects by any artificial measures, then such children should be admitted to the classes of sound pupils. Every year of school life the eyes and ears should be examined, as at the beginning, and any existing defects corrected as at first. In this manner of intelligent supervision, by the co-operation of the intelligent physician, and of the intelligent School Board, and of the teachers, many eyes and ears might be preserved in excellent condition that now are absolutely ruined.

Further, every teacher should be examined as to the perfection of his or her sight or hearing. It is well known that defects of these organs are very common among teachers as among all other book-educated persons. That the teachers should have good hearing and good sight in order best to accomplish their work, will at once be evident at all. Many a scholar and teacher, too, have suffered from the existence of such defects in teachers.

Have we made it clear that the development and the preservation of the best eyesight and hearing call for early and frequent examinations of these organs by competent persons, especially in persons whose life calls for large drains upon these organs? In this manner courses of life can be entered upon that will best favor the defective organ, and existing defects can be corrected. Incipient diseases can be recognized and relieved, or cured, and so the greatest possible service can be obtained from these organs with a minimum of damage to them.

B.—Never use the eye or the ear when the use of the same causes pain in either organ or in the head.

The healthy use of these organs is entirely painless. The existence of pain is proof positive that something is wrong, in the same manner as the creaking axle, the smoking car-wheel box, the rattling machinery. Common-sense calls for an investigation into the causes of the pain in the eye on using it. It may be that, as in the case of the over-heated axle, simple rest will restore the organ to its power of working without pain. Should this fail, then surely common sense calls for an investigation into the causes of the pain. It may be that at this stage it can be readily removed by simple measures, such as remedying defects in refraction, iritis, weakness from use in bad light, air, etc. Should the examination reveal a serious and irremediable condition, surely the sooner this is known and the affairs of life adjusted to it, the better will it be for all concerned.

C.—Never use the eye unless it is abundantly supplied with good blood.

Before breakfast the eye is generally ill supplied with such blood. Generally twelve hours have passed since the last meal. At least four of these hours have been devoted to more or less active work with the eyes; often this is more severe than during the day. Especially is this true of persons who perform manual labor. Besides the eight or more hours devoted to sleep still further drain from the blood its reserve of tissue-building material, and fill it with the waste substances separated from the tissues. Again, not only is the blood poor, from these causes, but the circulation of it is, on arising, sluggish and imperfect. The heart beats from ten to twenty times slower when the body is at rest in bed than when it is standing. Hence, on arising, some considerable time is required in order that such blood as there is shall course freely through the tissues of the eye. Such are some of the reasons why the health of the eye forbids its severe use in the morning before food is taken into the stomach and before some muscular exercise be had.

Plenty of good eyes have in this manner been ruined by students and others to whom such habits were a matter of convenience. The same argument, in so far as the poverty of the blood is concerned, will apply to the severe use of the eyes very late at night.

Of course, if sufficient amount of food has been digested to meet the calls for extra work, all may be well. Further, if such use of the eyes be habitual, the person instinctively takes an additional amount of food for the special demand to be made upon the eyes and other organs. Still, such habits of close and constant study of books late at night, by an artificial, often flickering, light, and in a more or less foul atmosphere, is unfavorable to the best health of the eyes.

Again, the eyes are ill-supplied with good blood when the body is in a state of exhaustion, hence the eyes should be used very sparingly, if at all, after a hard day's work, or when a state of exhaustion has been produced from any other cause. We suspect that very much of the harm done to the eyes of school-children is produced in this manner. The child is required to sit in a constrained position perfectly still for so many hours that it becomes exhausted. During and after this exhaustion it is required to, at least, keep its eyes fixed upon fine print, in a foul air and more or less imperfect light. The constrained position interferes with the proper circulation of the blood through the working tissues of the eyes. Is there any wonder that after a time these tissues should fail to do the work of well-fed tissues? Is it any wonder that such tissues follow the same general law of all living structures—whenover worked, break down? The principle is just the same as trying to get from a half-starved horse the work of a well-fed one. All horsemen know that such an attempt is likely to end in the ruining of the horse, and a failure to accomplish the desired work; for a similar reason the eyes should be used sparingly after a severe illness.

Of the numerous other conditions in which the imperfect supply of good blood to the eye renders its severe use harmful to the integrity of vision, we have not time to speak. Bearing in mind the general principle, its special application will usually be apparent to every thoughtful person.

D.—As far as possible never use the eyes for close work in an imperfect light of any sort.

What kinds of light are imperfect for purposes of vision?

(1.) Deficient amount of light, as in the early morning or twilight, or an artifical light far distant, or a very small artificial light, or light far from a window which is too small for the room and for a dark day. It is deficiency of light that is complained of in many school-rooms, and no doubt with adequate reason. When the light is such as to render it difficult to see the work or print before us, a proper regard for the preservation of vision will compel the immediate stopping of the work. Of course there are different kinds of work requiring different amounts of light, but the general rule just stated will hold good.

(2.) Light may be imperfect from its unsteadiness. It is this quality that renders the electric light harmful to vision. Gas-light often exhibits a degree of flickering very trying to the eyes.

(3.) The light may be steady, but the car or wagon in which we are seated may move. The attempt to read in the cars is a fruitful source of injury to the eyes. Some of the worst cases of muscular weakness of the eyes coming under my care have been derived from reading in the cars.

(4.) The practice of reading while in a reclining position upon a lounge or a bed, causes the light to enter the eye at such an angle as to require an undue amount of effort in order to see distinctly for a long time. Hence, such a position should always be avoided.

E.—When practicable, the light should fall upon the printed page or upon our work from the left side of the body and from behind the shoulder. In this way the movements of the right hand least obstruct the light and the rays are reflected with greatest directness from the page to the eye.

F.—Alcohol and tobacco, used to an excess, certainly have a deleterious effect upon the development of the best vision and the retention of the same.

The answer is the same now as in the days of Solomon to the query, "Who hath redness of eyes?" It is a well-known effect of alcohol for a person under its full influence to see snakes in the air and horrible things everywhere.

Germany is noted for excess of smoking in pent-up rooms, and Germany also furnishes proportionally more eye diseases than any other country; especially in the disease known as granular lids, very common there, and very difficult to relieve. That blindness, as well as imperfect vision and hearing, result from the use of alcohol and tobacco is well understood, but after all it is probable that more harm results in the diminished vitality of the tissues of these organs, by which they are unable properly to do the work desired of them. Those who desire the best vision and hearing will not tarry long at the wine cup, nor use much tobacco in any form.

G.—The agency of those faculties that we call mind and heart, have much to do with the best vision and hearing. Especially does fretting destroy, and a cheerful, happy mode of life strengthen, both of these senses.

Respecting the special care of the ears, we can here make but a few suggestions.

1. Pulling of the ears, or slapping of the same, have only to be mentioned to be utterly condemned, as they are frequently followed by great injuries to the membrana tympani and other parts of the ear.

2. All attempts to clean the ear by other instruments than the finger or a piece of simple soft cloth are simply damaging to its integrity. The various instruments for cleansing the ear sold with toilet articles are very destructive to the health of the ear. In a healthy ear the wax and foreign substances grow with the superficial portions of the skin of the external ear toward the external portion. When they have reached the portion where the end of the forefinger

can reach them, they should be removed, but never otherwise. Violating this rule we have the development of abscesses in the external ear, ear-plugs deep in the external auditory canal, injuries to and inflammations of the drum membrane and drum cavity of the ear.

3. The introduction of all sorts of remedies into the ear is extremely pernicious. The oils being kept at the summer heat of the deeper portions of the external ear soon rot and become both irritating to the skin and the membrana tympani, and further supply the soil needful for the growth of various parasites.

4. Unless directed by competent authority, no poultice should ever be applied to the ear when inflamed. Dry heat will serve to relieve pain as well as the poultice, and hot water will be better than either. Neither will promote destruction of the drum membrane as the poultice. The same is true of the eye.

5. Cold or sea water bathing is a prolific source of inflammation of the middle ear. Hence, in such bathing it is wise to protect the ear from the entrance of the water into the external meatus, especially to prevent the waves from dash- directly into the ear against the drum membrane.

6. When foreign bodies get into the ear, let them alone until some one can be seen who can extract them without doing more harm than good. In almost every case little harm will come to the ear from the presence in the external meatus of the foreign body, while infinite harm may come from injudicious attempts to extract it. Plenty of cases are upon record in which even death has resulted from such attempts. The only foreign substances which will not wait for skilled attempts for extraction are insects. These can usually be disposed of by filling the ear with water or oil, or better still, if possible, by dropping into the meatus a few drops of ether or chloroform, and then washing out the dead or stupified insect by means of water.

7. All running ears should be cured at the earliest possible moment, in the interest not only of good hearing, but also in the interest of the individual's life. As a matter of fact, most cases of abscess of the brain originate in running ears which have been permitted to continue in the hope that they would cure themselves.

8. The best of ears can not endure the constant din of certain shops, as those of the boiler-makers. Sudden and

violent explosive noises are often harmful, especially to slightly defective ears.

H.—How shall we know that the special senses are being injured by the use or abuse to which they are subjected?

(1.) Among the indications that none can fail to observe are "any redness of the edges of the eyelids, or any redness of the eyeball, continued for any considerable time. Such redness is certain to be the signal of danger, and should never be neglected. It may signify local disease of the eye, or general disease involving many of the tissues. Any defect of refraction may cause it, but in many cases it results from overuse of eyes in which no such defect exists. The relief of the condition depends upon the removal of the specific cause. But my point is, that such redness indicates that the eyes are suffering harm.

(2.) Pain, as an indicator of some disease operating harmfully upon the eye, I have already alluded to. Were its admonitions always heeded, the gain to good and prolonged vision would be incalculable.

(3.) Indistinct vision or imperfect hearing should at once lead to an investigation of the cause or causes, and their removal at the earliest possible moment. These causes are numerous. Some are trifling in nature and harmless to permanent vision or hearing. Others are of vital importance. All are familiar with the story of the fisherman and his son, who, on a bright day, drifted into the outermost circles of a mighty whirlpool. Vividly you recall the scene of their careless mein and the joy experienced in the motion of the boat without any effort at the oars. Thus in part dreaming, and in part watching the magnifiicent scenery and mighty whirlpool at a distance, they glided onward. Busied with pleasure and with thought of future gains and success in their enterprises, time slowly passes; as slowly does the boat enter one after another of the circles of the whirlpool; it moves swifter and swifter, but so slow is the increase that it simply serves to keep up the first pleasing sensations. Yet with thoughtless hearts they approach nearer and nearer the awful vortex. Suddenly a sense of danger comes over them. They spring to their oars; with the strength of desperation they strive to turn the boat from its onward deadly course, but their efforts are vain; the forces drawing the boat to the center of the vortex are stronger than their arms. Suddenly, under the strain of a stronger pull an oar breaks, and then another. With howls of despair, rending the hearts of powerless spectators on the banks, the occupants of the boat are hurled swiftly onward to their doom.

Faintly this images the listlessness with which the victims of certain affections of the ear and eye while away the time when escape from absolute deafness or blindness is possible. Faintly it pictures the insidious approach of the death forces, their awakening to a sense of danger, their frantic but hopeless efforts to escape, and the final closing of the scenes by the forever shutting their ears to sound and their eyes to light.

It is not possible for us here and now to describe these diseases. It suffices for our purpose to state distinctly that gradual failure of these senses, without adequate reason, is sufficient cause for a thorough awakening to an investigation of the cause of this failure. One of the worst and most dangerous forms of ear diseases has scarcely any other sympton appreciated by the subject of it than a gradual indistinctness of hearing. So also some of the most fatal of eye diseases begin with a gradual failure of vision. Its subject thinks often that he or she is simply growing old. They haunt the spectacle vender, the so-called optician, trying to get some glasses that will relieve the annoying loss of vision. But after a little, even with the best fitted glasses, the vision fails as before, until no glass will improve the sight. At last, when it is too late to save vision because the vision has been destroyed, they resort to the oculist and are told that there is no hope, the retina having been destroyed by the disease.

(4.) Frontal and other forms of intractable headache sometimes are almost the most prominent indication of some serious disorder in the eyes. At least, when all other measures have failed to relieve this condition, an examination of the eyes may reveal the source of the trouble. Our point is, that such headaches lead to a suspicion that the eyes are being injured. Such suspicion indicates that the eyes should be examined for the probable reasons of the headache.

Thus, we have in brief alluded to some of the measures by which we may obtain and preserve the best eyesight and hearing. It will readily be seen that the care of these senses in infancy is the condition of obtaining the best vision and hearing in all succeeding periods of life. So, also, the proper care of these senses in youth obtains for the rest of life the best vision possible. Hence, the proper care of these senses at any one period of life obtains for coming periods the greatest usefulness and power of these senses.

Aside from the proper use of these senses in and of themselves, it will be apparent that the best of health of every organ in the body and the most perfect performance of every function will very materially aid in the obtaining and preserving of these senses.

Especially is this true of the brain and nervous system. By numerous nerves these special senses are connected with the brain, the spinal cord, and the so-called sypathetic ganglia. Especially are the groups of cells in the cerebrum, in which the optic nerve fibres take their direct and indirect origin, intimately blended with the proper action of the senses of seeing and hearing. Only as these cells are well nourished, and kept in the most perfect order, can we expect to have the best activity of the special senses. We do not see with the organ we call the eye, nor do we hear with the organ we call the ear. Both of these may be anatomically perfect, and yet the possessor be as blind and deaf as a mummy. It must never be forgotten that we really see with the brain, and we really hear with the brain. The so-called organs, eye and ear, are merely the means by which light and sound can be transmitted to the brain cells. Hence, it is impossible to obtain the best eyesight and hearing without the most careful attention to the nutrition of the brain. Hence, the evils to young and growing brains which follow keeping them in such positions, in such air, and in such confinement as render the proper nutrition of the brain impossible. It is worse than useless to have the eyes of pupils directed to the printed page, when the condition of the brain, cells is such that it is impossible for them to receive and appropriate the impressions made upon the retinal elements. That alone is book study in which the brain cells receive and utilize the impressions made upon the retina. That is not hearing when the sound waves stop short of the brain. Popularly it is said that such ideas go in at one ear and out at the other.

Children should not be received into school unless their brains are in a well nourished state. They should be sent out of doors, or home, as soon as the nervous system becomes exhausted. All attempts to compel study under such a condition are simply harmful and useless, so far as learning is concerned.

So intimate are the relations of the teeth to the eyes and the ears, that few serious disturbances of the health of the teeth fail directly or indirectly to more or less weaken or actually cripple these organs.

Again, a disturbance of the stomach or other digestive organs reacts more or less upon the integrity of vision and hearing. Imperfect exercise of the muscular system is attended by imperfectly developed brain, and both directly and indirectly affects the powers of vision and hearing.

Most prolific of similar and even more grave troubles of the eyes and ears, are the numerous and common troubles and abuses of the sexual apparatus.

To sum up in one sentence this part of our subject, the obtaining and maintaining the best vision and hearing, imperatively call for the normal and healthy action of every organ in the body. We are entirely familiar with the fact that persons have serviceable eyes and ears while they are subjects of organs constantly suffering physiological abuse, but we know that the vision of hearing of such are not the best that they might have. Fortunately or otherwise there is given to most a large surplus of vision and hearing above that which is called for by the ordinary exigencies of life. This surplus may all be squandered without the individual's feeling any inconvenience unless some emergency arises calling for some of this physiological reserve.

To sum up what we have suggested, in plain propositions, the best eyesight and hearing can be obtain and maintained by—

(1.) By acting as if the eyesight and hearing were of more importance than any other thing on earth.

(2.) By having every child's eyes and ears carefully examined by an expert before it is given specific tasks to perform, calling for the full exercise of healthy eyes. If the eye or ear be found defective, then by grading the tasks according to the nature of the defect.

(3.) By never using the eye or the ear when such use causes pain in either organ or in the head.

(4.) By never using the eye when it is imperfectly supplied with good blood, as before breakfast, when utterly exhausted, after a severe illness, etc.

(5.) By never using the eyes for close work in an imperfect light, as in early morning or evening twilight, by a very distant and weak light, far from the window on a dark day, etc.

(6.) By utterly avoiding the use of tobacco and alcohol, except for medicinal purposes.

(7.) By always cherishing a cheerful habit or thought and feeling toward all persons and all events.

(8.) By avoiding all such injuries to the ears as result from slapping, pulling, and very loud and sudden noises.

(9.) By keeping out of the external ear all things smaller than the forefinger, or stiffer than a towel or handkerchief.

(10.) By keeping out of the ear all oils, all soaps, all cold water, and everything else recommended by sympathizing but mistaken friends; especially never apply a poultice to the ear for the relief of pain. Dry heat will do all that moist heat can to relieve, and be free from the danger of absolutely destroying the membrana tympani.

(11.) All running ears must be cured at the earliest possible moment, at the peril not only of the hearing, but that also of the life.

(12.) By heeding the warning given by redness of the eyelids and of the white of the eye, by pain in or about the eyes or ears, by the continuance of indistinct vision for any considerable time, or of imperfect hearing, by the continuance of frontal headache after usual remidies have failed to relieve it.

(13.) By regarding the eyes and ears as simply a part of a very complex system of apparatuses, the best health of all being absolutely needful for the best health of each.

(14.) By remembering that we do not see with the eye or hear with the ear, but with the brain. Hence, after the brain is exhausted, it is impossible to really see or hear. Hence, the utter absurdity as well as perniciousness of any endeavor to see or hear after the brain has become exhausted. Especially is this true of young and growing brains. Here, too, it is needful to remember that the normal brain continues to grow until about the age of forty.

The Michigan State Board of Health.

Reported for the CINCINNATI MEDICAL NEWS.

THE regular quarterly meeting of the Michigan State Board of Health was held in the Board's office at Lansing, July 10, 1883, the following members being present: John

Avery, M. D., of Greenville, President; Henry F. Lyster, M. D., of Detroit; Arthur Hazlewood, M. D., of Grand Rapids; Victor C. Vaughan, M. D., of Ann Arbor, and Henry B. Baker, M. D., Secretary.

Dr. Avery presented a communication from Ephraim Follet, of Sheridan, Montcalm County, relating to the overflow of lands caused by obstructing a stream for the purpose of running logs. He also read his reply to the letter, in which he stated the legal remedy and the difficulty in securing the abatement of such nuisances.

The Secretary read his report of work during the last quarter, which showed that a successful Sanitary Convention had been carried on at Reed City, and arrangements had been made for a Convention at Muskegon, August 23 and 24; that considerable correspondence had been had concerning the examination of plans for proposed buildings at various State Institutions; that the report for 1882 had been distributed to various societies, libraries, etc.; that the *Weekly Bulletin of Health* in Michigan had been regularly prepared and issued; that returns of the names and addresses of about 1,200 health officers had been received and filed; that a circular relative to the danger to be anticipated from small-pox, and one relative to the reporting of contagious diseases, with appropriate blanks, had been devised and distributed to all local Boards of Health; that the article entitled "Diseases in Michigan in 1882," had been compiled; that the accumulated letters of the office for the years 1873–1881 had been arranged and bound; that the compilation of the articles on "Meterology in Michigan in 1882," and on "Weekly Reports of Disease, 1882," was well in hand; that Circular 55, relative to the work of health officers had been revised to conform to the new legislation of 1883, and, if approved by the Board, was ready for publication,

The Secretary read a resume of the recent work of other State Boards of Health.

The Board then proceeded to examine plans for proposed public buildings, under the law which requires all plans for State buildings to be submitted to the State Board of Charities and to the State Board of Health. Plans were examined in detail as follows: for wings to the present School for the Blind at Lansing; for a proposed hospital at the Michigan Asylum for the Insane at Kalamazoo; for a cottage hospital for the State Public School at Coldwater; and for a main building for the State Industrial for Girls at Adrian, and made record of propositions which are approved, and several recommendations.

Dr. Avery reported a visit to Fremont, Newaygo County, to examine into a nuisance caused by an extensive tannery, where five hundred tons of hides are annually tanned. He had made recommendations which, in his opinion, would abate the nuisance, and it had been promised that his recommendations should be complied with.

On motion of Dr. Lyster, the State Board's Committee on Buildings, including ventilation, etc., was requested to prepare a report on the best plans and methods of construction of hospitals suitable for the various State institutions.

Translations from Our Foreign Exchanges.

Translated for MEDICAL NEWS by Dr. Illowy, Cincinnati, Ohio.

BIOLOGICAL SOCIETY (PARIS). MEETING OF APRIL 24, 1883.

Anæsthetic Sleep.—M. Dastre read a note, in the name of M. Aubert, of Lyons, on the advantages of injections of atropia associated with morphine. The injection is given about a quarter of an hour before the inhalations of ether; sleep follows promptly, without being preceded by a period of agitation, and without any subsequent vomiting. The addition of atropine to the morphine only adds to the advantages of this method, and removes certain inconveniences arising from the absorption of morphine alone. Prof. Brown-Sequard employs the injections of morphine and atropine combined, since a long time, and has derived the greatest benefits therefrom.

Acupuncture.—M. Remy presented several acupuncture needles, of which Japanese physicians make great use. These needles are of gold or silver, and of extreme thinness. By the aid of a small conductor they are thrust into the skin and then made to travel farther by a rotary movement. Their extreme tenuity permits of their introduction without the least pain. In the medical libraries of China and Japan there are numerous works, in which are mapped the regions where acupuncture is to be practiced. The physicians of these countries believe that they derive great benefit therefrom. Prof. Brown-Sequard has had recourse to acupuncture a great number of times to calm the pains in rebellious neuralgias. The results have often been very favorable.

CHLORHYDRATE OF KAIRINE.

Drs. Hallopean and Girat have recently made a very interesting physiological and therapeutic study of this substance. It is a chemical composition recently obtained, a derivative of quinoleine, whose formula is as follows: $(C^9.H^9Az)OCH^3H$, and should be read hydrate of methyloxyquinoleine. For reasons of convenience, it is called kairine. This substance possesses a powerful antithermic action in the normal, as well as in all febrile, states. Its action is rapid and fugacious, which is demonstrated by its rapid elimination.

THE IMMUNITY OF COPPER WORKERS FROM INFECTIOUS DISEASES.

Dr. Burg, a long time ago, demonstrated, by means of statistics, collected with great patience and labor, that laborers who absorbed the *dust of copper* presented an astonishing immunity during the prevalence of cholera epidemics. During the recent epidemic of typhoid fever he again took up this question, and assured himself that among those carried off by the epidemic of typhoid fever there were only two copper workers. They seem to possess a remarkable immunity, which can not be attributed to anything else than to a modification of the organism, produced by the absorption of copper. Another interesting fact in support of this hypothesis: There exists in Paris, since sixty years, a society of copper workers, numbering between three and four hundred members. Since its foundation this society has lost but one member from infectious disease—from small-pox. M. Burg believes himself justified in asserting that there is an incompatibility between the microbes of infectious diseases and the salts of copper; and that it is in place to protect against an invasion of these parasites by the administration of the salts of copper in *large doses*, their *innocuity* having been demonstrated by Messrs. Ducorz and Galippe.—*Progres Medicale.*

RESORCINE IN SIMPLE CHANCRE OF FEMALES.

Messrs. Leblord and Fessiane, in a monograph recently published, claim that resorcine (a substance obtained by causing potassa to act upon a number of gum resins, as assafœtida, galbanum, gum ammoniac, etc.) is superior to iodoform in the treatment of simple chancre. It has no odor, produces no toxic effects, provokes but very little pain; it causes the cicatrization of simple chancre in about twenty-three days (the average duration in the iodoform treatment being thirty-eight days). The formula employed by the authors is either the resorcine in powder, or the following solution:

	Resorcine, .	5 grammes (75 grains).
M.	Aq. Destill, .	10 grammes (150 grains).

INHALATIONS OF IODOFORM IN TUBERCULOSIS.

Dr. Davezac, of Bordeaux, employs iodoform by inhalation in cases of tuberculosis. The apparatus used by him is very simple and inexpensive—a large-mouthed bottle, holding about 250 grammes, the mouth closed by a cork pierced with two openings; in one, a vertical glass tube, very thin at its lower end; in the other, a glass tube bent at an angle, its one end at the bottom of the bottle, and the other affixed to a rubber tube of about twenty centimeters, having a glass mouth-piece. The medicated liquid occupies the lower portion of the bottle, and when the patient inhales through his mouth-piece, the external air thus solicited travels through the layer of liquid, and comes to the patient freighted with the vapors of the medicament. His formula is as follows:

Iodoform (pulverized),	1 grm., 50 ctgrms.
Essence of turpentine,	50 grms.
Oil of arachides, (American earth nut).	150 to 200 grms.
Essence of bergamot,	2 grms., 50 ctgrms.
Thymic acid,	2 grms., 50 ctgrms.

The oil in the mixture emulsifies the iodoform without destroying its volatility, and lessens the susceptibility of the mucous membrane against the too irritating qualities of the turpentine. The inhalations seem to have good effect in diminishing the cough and lessening the expectoration and removing its fetidness.—*Progres Medicale.*

WHOOPING-COUGH.

Dr. Witthauer recommends the following formula:

℞	Tincture Eucalyptus, . .	3 parts.
	Glycerine, ...	*aa* 15 parts.
	Syrup, ...	*aa* 15 parts.
	Water, ...	100 parts.

M.—Dose: One desert-spoonful every three hours. For infants, a year to a year and a half old, the dose is from five to eight drops every three hours. The author also recommends inhalation of eucalyptus.—*L' Union Medicale, Canada.*

REDUCTION OF STRANGULATED HERNIAS BY THE HYPODERMIC INJECTION OF MORPHIA.

Dr. Lombard, of Terrasson, France, reports on the above subject as follows: I have tried the method of Dr. Phillip for the reduction of strangulated hernias, viz.: the hypodermic injection of morphia into the region of the strangulation. In eight cases tried, six were successful. Toxis and all ordinary means had been tried unsuccessfully, and kilotomy seemed the only resource. Twice reduction was impossible, and the patients succumbed, refusing to take the chances of an operation. This is a most precious method, especially in the country, where often the operation is rejected both by the patient and the family, or where aid is hard to get. The injection itself, even if unsuccessful, is no obstacle to any surgical intervention, and in no way diminishes its chances of success. Called by a colleague to perform an operation, to which the patient had assented, and for which all preparation had been made, I proposed a hypodermic injection of morphia. A quarter of an hour afterward I reduced the tumor with the greatest ease; it was recent and rather small.

I have at times been compelled to wait longer and to employ a more energetic, though not very forcible, toxis. In another case, and this is the only one in which its efficacy may seem doubtful, the injection of morphia arrested the vomiting, but reduction by toxis was impossible—the operation could not be performed till the next day. Before proceeding to operate, eighteen hours after the injection, a vigorous toxis reduced the tumor. I attribute to the morphia a certain part in this happy termination.

Resume.—I employed the method of Dr. Phillip eight times, and succeeded six—at least five times. The figures seem to speak eloquently in favor of this method.—*L' Union Medicale, Canada.*

EXTRAORDINARY FECUNDITY.

The *Cronica Medica*, of Valencia, of April 20, 1883, reports that the mistress of a dairy, situated in the Faubourg San Martin de Provinsals, called *Poble nou,* aborted, about fifteen days ago, in the fourth month of pregnancy, expelling *eight fœtuses!* This case, adds the journal, which is absolutely true in all its details, is perhaps a phenomenon without precedent. It is to be regretted that the above-named has not thought it necessary to give further details of so extraordinary a case; for it is yet doubtful whether an authentic case of six fœtuses can be cited. (See "Treatise on Obstetrics," Tarnier and Chantreuil, p. 543).—*Progres Medical,* No. 18, 1883.

THE URINE AFFORDING A DIAGNOSTIC SIGN OF THE CHARACTER OF TUMORS.

Dr. Rommelære states, that in affections of a malignant nature, the proportion of urates in the urine diminishes gradually up to 180 grains in the twenty-four hours. This hypo-azoturie does not occur where the tumor is benignant. —*L' Union Medicale, Canada.*

EXPERIMENTAL CLINIC.

New Researches, Experimental and Clinical, on Albuminuria, with Especial Reference to the Albuminuria of Bright's Disease,

by Prof. Semmola of Naples.

The following memoir was presented to the Academy of Medicine, at its session of June 15, by Prof. Semmola:

Prof. Semmola began by reading a few paragraphs from the *Transactions of the Academy of Medicine,* Naples, for 1850, in order to recall the fact that to him belongs priority in all the researches as to the relative influence of alimentation on the quantity of albumen eliminated by kidneys affected with Bright's disease.

He demonstrated at that time that, under an exclusively nitrogenous regimen, the albuminuria becomes three to four times greater, and that under the influence of vegetable regimen the albumen is reduced to a third or a fourth. This influence of alimentation was for him the fundamental criterion, which compelled him to admit that the renal process was only secondary, and that the true pathological condition, constituting the point of departure of all the symptoms, lay in the faulty combustion of the albuminoids of the blood.

Later, in 1861, he concluded, from his later researches, that albumen might traverse the kidneys without any previous alteration of the epithelium; and that, on the contrary, it was in reality this forced elimination of albumen through the kidney, as a substance foreign to the organism, that was capable of exciting, at first, a renal hyperæmia, and, later on, an irritative process of the different histological elements of the kidney.

The opposition put forth by the anatomists against this doctrine did not deter him, and in his subsequent works he has put forth new proofs, experimental as well as clinical, in favor of the "hematogenous origin" of the albuminuria of Bright's disease. His principal arguments and experimental proofs were the following:

1st. Diminution of the urea from the beginning of the Brightique albuminuria, without its accumulating anywhere. 2d. Identity of the chemical characteristics of the albumen eliminated with the urine, with that of the serum of the blood, in those affected with Bright's disease. 3d. The constant bi-lateral alteration of the kidneys in true Bright's disease, and consequently the necessity of a general preceding cause, to influence particularly both kidneys. 4th. The regrettable confusion that the anatomical point of view has produced in the clinical field, imagining clinical types which have no real existence *vis-a-vis* to artificial subdivisions of renal lesions; and, in consequence thereof, there is lost sight of the true pathological, for which alone the real name of Bright's disease must be reserved.

Since three years, Prof. Semmola, having become convinced, after a long trial, of the great imperfections of the chemical reaction for differentiating the different albumens, has fixed his attention on the degrees of diffusibility of the albuminoids of the blood in the different albuminuria, by reason of their cause, and of the degree of diffusibility of the albumen eliminated with the urine. He has expressed the profound conviction that here lies the secret to be studied: the different gradations of albuminoids, as tested by their assimilability; or, if you please, their aptitude to perform their functions in the work of nutrition.

He has arrived at the following conclusions:

1st. The albuminoids of the blood of patients with Bright's disease is much more diffusible than the albuminoids of the blood in other albuminurias (mechanical albuminuria, etc.). 2d. In patients with Bright's disease, in the first stage, and therefore curable, if the serum of the blood be examined before and after the cure, we find that the diffusion of the albuminoids of the blood augments, diminishes, or ceases, in complete rapport with the quantity of albumen eliminated by the kidneys. 3d. This physico-molecular constitution of the albuminoids of the blood, which characterizes their inassimilability, and consequently their forced elimination, is produced by a greater or less default of the cutaneous functions.

In support of these propositions, Prof. Semmola cites a great number of laboratory experiments and clinical observations which clearly prove the rapport existing between the activity of the cutaneous functions and the alterations of the diffusibility of the albuminoids of the blood; that is to say, their degree of assimilability.

He examines, by comparison, the degree of diffusibility of the albuminoids of the blood before and after varnishing the skin, in proportions more or less extended, so that the animal may live a sufficient time.

He has constantly found that, all things being equal, the serum of the blood of these animals presents at least a third of the albuminoid principles which become diffused, if the varnishing occupies at least one-half of their cutaneous surface. In these cases albuminuria is also observed, and the bile of these animals contains albumen in the proportion of 3 to 5 in 1,000.

As to the clinical observation, he has collected a series of cases of chronic eczema and psoriasis, which alternated in their apparition on the skin with albuminuria, and which were definitely cured by a long course of hydrosudopathic treatment. He recites a very interesting case of cutaneous seborrhea, in whom the skin reproduced perfectly the experiment of varnishing in dogs. Water did not moisten it; the patient was always cold; he felt the least breath of air, and he became profoundly cachectic. He suffered with albuminuria, and it was only after a course of Hydrosudotherapy that he was completely cured. The albuminuria did not reappear.

For Prof. Semmola it is, therefore, incontestable that the first stage of Bright's disease is constituted by a profound modification of the albuminoids of the blood, which follows in the measure that the cutaneous respiratory functions are enfeebled under the influence of cold and dampness, which are, in his estimation, the true causes of Bright's disease. This action of damp cold is slow, very slow; and the "Brightiques" are already sick, without being aware of it. At this period there already exist the three characteristic symptoms of this malady, in order of succession: 1st. Increased diffusibility of the albuminoids of the blood, and, consequently, an increasing diminution of their assimilability.

He calls this chemical state, "eteralbumineurie." 2d. Diminution of the quantity of urea, on the one hand; and, on the other, forced elimination of the albuminoids by all the emunctories intended for the depuration of the blood, the kidneys in first line.

From these facts he was led to analyze the bile after the death of patients with Bright's disease. In fact, it is this which distinguishes the albuminuria of Bright's disease from other albuminurias, that analyzing the bile after death, in the former case, it is found to contain albumen; in the latter none is found.

The sweat and saliva, artificially provoked, present the same difference as to the presence of albumen. The final conclusion is without contradiction of great interest, because it groups itself by the side of the differences in diffusibility of the albuminoids of the blood in different albuminurias. It is this: In Bright's disease we have a loss of albumen, affected by the organism through its different emunctories, to rid itself of albuminoids, become inassimilable; in other albuminurias (mechanical, nephritic), the elimination of albumen is due to a purely local cause, which depends either upon the degree of pressure in the renal circulation, or upon epithelial alterations.

To complete this edifice, built upon laboratory experiments and clinical observations, there remained a last staple—that is, the experimental demonstration—that inassimilable albuminoids, and therefore foreign to the organism, were capable of producing in the kidney a process analogous to that of Brightic nephritis, by the mere fact of their passing through the renal filter. It is precisely this which Prof. Semmola has done by a long series of experiments, very ingeniously conceived and very demonstrative. He made injection of albumen in the cutaneous areolar tissue; he rejects completely the practice of some experimenters of injecting the white of an egg directly into the blood, having become convinced that the direct albuminous injections into the blood give rise to disturbance too profound to obtain a complete resemblance to the "eteralbumineurie" or "eteralbuminose" caused by nature. He has injected variable quantities of white of egg, from 20 to 70 grains daily, keeping always strict account of the weight of the animal, in order to establish a constant rapport between this and the albumen injected.

He has seen coming on gradually, from the second day, a hyperæmia, now simple, now accompanied with globular extravasation into the capsule, even into the interior of the uriniferous conduits. The capsule is distended by the presence of an amorphous or granular matter having the characteristics of albumen. Later there manifested itself tumefaction, the migration of lymphoid cells, very advanced fatty degeneration, necrosis of epithelium, and even a beginning of proliferation of the areolar tissue in animals that had longer resisted to the albuminoid injection. Prof. Semmola accompanied this very interesting description by the exhibition of a series of plates and preparations, executed by Prof. Bocardo, who had assisted him in his researches. After these first results, and to verify his experiments, Prof. Semmola repeated them, employing for the injections other albuminoid substances, less hetrogeneous than the white of an egg; that is to say, the yolk of the egg, the serum of the blood, the albumino-peptones, and milk. It is impossible to give in detail all the particulars of these comparative experiments, and it is to be hoped that the work of the learned Professor will soon be published in *extenso.* For the present we will only say, that the more the chemico-molecular constitution of the albumen approaches the albumen of normal blood, the less injurious will be the passage through the kidneys. Thus the injections of the serum of the blood into the subcutaneous areolar tissue is followed by albuminuria; but, all things being equal, it produces renal irritations more slowly, more mild, and more transitory. Lastly, he has observed in dogs an anasarca more or less developed, in rapport with the quantity of albuminoids injected, and the more or less pronounced degree of the diffusibility of the albuminoids of the serum. With small quantities anasarca never appears, although there is elimination of minute quantities of albumen by the kidney.

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It confirms also, as the Professor has well said and clearly developed, that the chemico-molecular constitution of the albuminoids of the organism of the living economy is of the greatest variability; and that a trifle, the simple passage across a living membrane, is capable of modifying it, even to the point of rendering it inassimilable, diffusible; that is to say, incapable of performing its function in the work of nutrition.—*Progres Medicale*, 24, 1883.

Selections.

Cases in Practice.—Lupus.

J. E. GRAHAM, M. D.

The following are a few cases of Lupus, which have come under my observation in ten years' practice. They are given partly because they represent different forms of the disease, and partly on account of their illustrating some interesting points in pathology. The first one of Lupus Hypertrophicus, extending over the greater part of the gluteal region, and forward over the groins. The history of the case is as follows:

H. McK., æt. 28, sailor. Admitted to the Toronto General Hospital, October 15th, 1874. Up to the onset of the present disease he was strong and healthy. It commenced with a small pimple over the region of the coccyx. This was lanced, and healed up in two or three days. About three months afterward another pimple appeared on the same place, which healed up as before. The same appearance and disappearance occurred about every three months for the next four years. During that time he was occupied as a sailor, his general health being good. At the end of the four years, however, the sore commenced to extend, and in a year it became about the size of a ten-cent piece. Caustic was then applied twice a week. The diseased surface was afterwards excised, and the base cauterized with argent. nit. It continued, however, to extend, so that at the end of the sixth year the patch was 1½ inches long, and half an inch broad. It was excised the third time without any good effect. At the end of the seventh year it was five inches long and two broad.

For the last three years he has not had any treatment. No history of tuberculosis or syphilis.

Present Condition.—The disease now almost encircles the body, extending from the sacral and coccygeal regions around to the pubes. The surface is raised and smooth, being made up of badly organized cicatricial tissue. The nodules peculiar to lupus, exist near the edge of the diseased surface. The patient remained in the Hospital some months. He was treated internally by large doses of potass. iodid. and cod liver oil. The external applications used were of a mild astringent and alterative character. No caustics were used. He left the Hospital very much improved. This was a very typical case of the Hypertrophic character. The nodules, as well as the central cicatricial tissue, were much elevated. It presented almost the appearance of a keloid.

Case II.—Jane McG. suffered from the most inveterate form of Lupus Vulgaris. It attacked first the side of the nose, and spread gradually over the cheeks. It then attacked the lips and chin, and passed upwards to the eyelids and forehead. She was twelve years of age at the commencement of the disease. In four years afterwards she was admitted into the Toronto General Hospital, December 15th, 1873. At that time the greater part of the face was involved. She has been under observation since 1875—now nine years. The treatment pursued has been varied in character, potass. iodid. hydrarg. perchl., tonics, cauterization with nitrate of silver, etc.

During the last year the Thermo-cautery has been applied once every two weeks, and an ointment composed of iodoform, ol. eucalypti and glycerine used. This plan of treatment produced by far the best result. There is now very little ulcerated surface remaining—the greater part of the face being covered by a cicatrix.

There was a family history of syphilis. The mother, a strong, healthy woman, had several miscarriages, and six of her children died in infancy, from what appeared to be syphilitic disease. The ulceration in Jane's case, however, was not syphilitic in character, being in fact a very typical form of Lupus Vulgaris. The mother procured in U. S. a divorce from the husband on the ground that he was syphilitic, and married again. It is singular that the first child, after the second marriage, presented a most obstinate form of eczema.

Case III.—*Lupus Erythematosus.* M. C., æt. 36, married, and the mother of five children—all healthy. She came under my notice about five years ago. The disease began four years before I saw her. It commenced near the nose and spread over both cheeks, disfiguring the face very much. It presented the peculiar butterfly appearance. The redness was always increased during the menstrual period. The ulceration and subsequent cicatrization was of a very superficial character. It strongly resembled that form of disease named by Hebra, Seborrhœa Congestiva. She did not remain long enough under treatment to show any satisfactory sign of improvement.

I saw this patient again in the early part of this year. The disease has advanced very much. Nearly the entire scalp is now devoid of hair, and covered by the cicatricial tissue. Nearly the whole of one ear is also occupied by the disease.

Case IV.—*Lupus Erythematosus.*—J. McD., æt. 21, farmer, unmarried. Patient was sent to me for consultation by Dr. McWilliam, of Dundalk, and Dr. Cotton, of Mount Forest. There was no family history of tuberculosis or syphilitic disease. The patient has always been quite healthy, with the exception of the condition of the face. The lupus began some years ago on the right cheek. It resulted from a wound, and gradually spread over the right cheek and across the bridge of the nose to the left cheek. The ulceration is very superficial, as is also the resulting cicatrix. The history of the case is one of constant progress, notwithstanding the use of various remedies. I recommended the use of ethyl nitrate as a mild caustic, with iodoform, ol. eucalypti and glycerine as a constant application.

The patient was seen by me once after the commencement of this treatment. There was some improvement.

Saw Dr. McWilliam in the early part of September, who informed me that the patient had shown very marked improvement.

Case V.—Miss M., æt. 25. Came to me for consultation, March 16th. Patient has always been healthy, with the exception of present disease. About eighteen years ago, when she was seven years of age, an abscess formed in the right groin, from which pus was discharged. From the abscess a peculiar inflammatory condition of the skin commenced, which gradually spread until three years ago, when it reached its present dimensions.

About ten years ago a small pimple appeared in the right eyebrow. From this point the disease spread upwards over the forehead, and downwards over the right cheek. From the latter situation it extended gradually across the nose to the other side of the face, and backwards to the right ear. About five years ago the same diseased condition appeared on the right breast, and gradually spread until the patch became as large as an English penny, when it ceased extending.

Present Condition.—Patient is a bright, intelligent girl, and gives a good account of the disease. The right thigh, from the hip to the knee is, to a great extent, covered by an eruption which, at first appearance, somewhat resembles psoriasis. The skin is thick, of a bluish color, and covered by small fine scales. Immediately above the knee the eruption exists in patches of nodules, which are covered with scales. A little higher towards the hip the nodules have run together, producing an irregular elevated surface. When the scales are rubbed off an indurated surface remains, which does not show any great tendency to bleed. Immediately below the patella there is a mass of epidermic cells, one-third of an inch thick, very similar to accumulations which occur in psoriasis. The disease has existed about the knee for seven years. In the middle third of the thigh the disease has existed ten years. Here there is not so much induration. The nodules and raised patches are not so congested. Here and there among the patches are small portions of cicatricial tissue, where the disease has once existed, and from which it has disappeared. In the upper third of the thigh, on the outer side, is a large patch of thin cicatricial tissue, where the disease once existed. The integument has a peculiar parchment appearance, remarkably thin and pliable, very much wrinkled in places, which gives it the appearance of senile atrophy of the skin.

On the right gluteal region the same condition exists as above the knee, viz.: elevated nodules and patches covered by scales. The disease has also spread over the left gluteal region and a short distance down the left thigh. As previously stated, there has been no extension for the last three years. Patient's mother states that on three different occasions, during the last eighteen years, patient has been seized with chills, followed by fever, and then swelling of the right thigh. A discharge of fluid would take place, which was at first thin and watery, but would rapidly become purulent. The discharge at these times was very profuse, and of an offensive odor, so much so that her mother was obliged to use charcoal poultices. These attacks lasted about three weeks, during which time the patient had to be in bed. When they were over, the skin was left in the same condition as before their beginning.

Condition of Face.—The integument of the right cheek back to the ear is involved; also that around the right eye and over the right side of forehead. The nose, and about half of the left cheek, are also affected. The tip and part of right side of nose is covered by a scab, which occasionally comes off, leaving a bleeding surface. This is the only situation throughout the whole disease where there is any tendency to ulceration.

The upper eyelid of right eye is drawn up and the lower one downwards by cicatricial tissue. She is unable to shut the eye. The part of the face involved has a dark, reddish color, dry and partly covered by scales. On looking closely one can see between the red patches white lines of cicatricial tissue.

On the left cheek, near the diseased border, there exist in the healthy skin three congested points, about the size of pinheads or a little larger. They are not elevated, and very slightly indurated. They are an example of the way in which the disease commences.

On the right breast there is a small diseased patch. Here the nodules are mostly discrete elevated bluish red papules, covered with scales.

Family History.—Patient has three brothers and one sister. They are quite healthy. There is no history of hereditary disease in the family. Patient was a healthy child. When seven years of age had whooping cough and measles. When her health was lowered the abscess appeared, which was the precursor of the present disease.

There are one or two interesting points in the pathology of Lupas, which I shall now refer to.—

The relationship which Lupus Vulgaris bears to Lupus Erythematosus.—According to the English authorities, the latter is but a mild variety of the former, whereas the German pathologists look upon them as entirely distinct diseases. They consider Lupus Vulgaris as a neoplasm, and Lupus Erythematosus as the result of simple inflammatory action. If Lupus Vulgaris is really a neoplasm, there is no doubt but that this distinction would hold good. If, however, we look upon Lupus Vulgaris as an inflammation, in the same way as the growth of tubercle is an inflammatory process, then I do not see how any dividing line could be drawn between the two conditions. They would in that case be considered as the same diseased process, but differing in severity, and the depth to which the process extends. It is a well-known fact that clinically the two conditions approach one another so nearly that it is impossible to say to which class a particular case belongs.

2. *The relation of Lupus to Syphilis.*—This question is of

special importance in Jane McG. In the family history there is abundant evidence of syphilis, yet the disease presented is not a syphilide, but a pure case of Lupus Vulgaris. This is proved by the course the disease has taken and by the utter uselessness of all antisyphilitic remedies.

There is no doubt that generally speaking both clinically and pathologically, the dividing line between syphilis and lupus is distinct, but to what extent the former may be the cause of the latter has not yet been determined.

Congenital Absence of One Kidney.

Dr. Paul Guttmann reports two cases of congenital absence of the right kidney, complicated with anomalies of the genital organs, in *Virchow's Archiv* (for April 6). A review of the literature of the subject for twenty-five years was made by Beumer, who found forty-eight cases of total absence of one kidney recorded in this period. Thoma, in his great work upon the size and weight of the different organs in the human body in health and disease, adds a few cases to this list, which has been still further extended recently by Falk, Schwengers, and Thiebierge, until medical literature at present contains records of about seventy cases. To this number Guttmann adds the following: B. K., a boy 15 years of age, had suffered with kyphosis, the result of a fall when he was three years old; this was followed by a chronic abscess, which spontaneously opened three years before admission. When he came in, he had marked dyspnœa, cyanosis, œdema, catarrh of the lungs, hypertrophy of the heart, enlarged liver, albuminuria, with a daily discharge of only five hundred to seven hundred cubic centimeters of urine of specific gravity 1012–15. After his death the left kidney was very greatly enlarged, about twice the normal size for a boy of this age. The ureter was hypertrophied and also dilated. The right kidney and ureter were completely absent. The right seminal vesicle and vas deferens were also missing; the left about normal. Both testicles were normally developed, and apparently were alike. Unfortunately, they were thrown away before further examination could be made upon this point. Both suprarenal bodies were present.

P. A., a girl 20 years of age, died of consumption in the hospital. Physically she was poorly developed; the genitalia appeared like those of a girl of thirteen years; there was also extensive emaciation.

At the post-mortem examination the left kidney was found to be enlarged about one-third in size over the normal; the ureter was markedly dilated, and contained a small uric acid calculus. The right kidney was completely wanting, as well as the right ureter. The aorta was small, and there was no right arteria renalis. The genitalia were poorly developed, but apparently nothing abnormal existed up to the point of junction of the cervix and body of the uterus, when a difference in development was noticed. On the right side the broad ligament did not extend to the level of the cornu, but was defective. Apparently there had been originally a uterus bicornis, in which the left horn had developed, but the right had completely failed to do so. The right ovary and Fallopian tube were only rudimentary, and were recognized under the peritoneum at the side of the pelvis; the left ovary was also small; the left Fallopian tube was present and had its normal relations; the right, on the contrary, was only half its proper length, the peripheral extremity being apparently normal, but the uterine end terminated in a blind extremity.

As a rule, in these cases there is hypertrophy of the remaining kidney. It is heavier and larger than normal, which Beumer, after microscopic examination, declared was not due to increase of the glomeruli and tubules, and therefore is to be attributed to hyperplasia of the connective tissue. Leichtenstern, on the contrary, has found the glomeruli enlarged, and also the diameters of the tubules, so that the increase in size is both hypertrophic and hyperplasic. As regards the two cases under consideration, Guttmann found amyloid degeneration in the boy, and detected both hyperplasia and hypertrophy; in the girl there was no real hypertrophy of the anatomical elements, but simply hyperplasia. —*Medical Times.*

Parasites and Their Effects Upon the Human System.

BY GEORGE SUTTON, M. D., AURORA, IND.

A paper read before the Indiana State Medical Society.

PARASITES are defined to be organized bodies living on or within, and drawing nourishment from other living bodies.

Although a feeling of prejudice or disgust may arise when we first direct our attention to the investigation of parasites, we soon find, however, that we have commenced the examination not only of an undeveloped subject, but one of the most interesting, one of the most wonderful, one of the most important, one of the most extensive subjects connected with the science of medicine. From the recent rapid advancement of knowledge on this subject, we shall adopt the view that a large portion, if not all, the infectious and contagious diseases arise from different species of living vegetable or animal parasites. We believe this view harmonizes best with the facts presented in the development of contagious diseases. It is difficult to conceive how the different forms of infection should arise from fragments of abnormal tissue or different chemical compounds, and that these compounds, when introduced into the human system, should have a latent period, or period of incubation, and then be capable of self-multiplication, each compound producing a specific form of disease, a disease which is just as distinct from other diseases as the different species of animals or plants are from each other. Smallpox is just as distinct from scarlatina as swine are from sheep, or rye from oats. Taking this view then, which we believe to be now almost universally adopted, we see at once the importance of the subject, and that the influence and effects of parasites are intimately associated with the happiness and prosperity of man.

The great aerial ocean in which we live swarms with myriads upon myriads of the germs of parasites. The poet tells us that:

> "Millions of spiritual creatures walk this earth
> Unseen both when we wake and when we sleep."

Science has revealed that around us, but far beyond the range of unaided vision, are organic beings whose influence upon animal and vegetable life is almost incalculable, and we are almost inclined to believe that it is possible amid the changes taking place upon our globe, that these invisible beings may bring about the destruction of some of the higher orders of animal life, even man himself.

Their influence has been felt in war, as they are agents in pestilence and famine. They have weakened the force of armies and made powerless the war ship in mid-ocean. They spread over the world, producing the pestilence, leaving misery and desolation in their track; they blight the crops of the agriculturist, and ruin and famine are the consequences. The annual loss to the crops in the United States alone from parasites is estimated at $300,000,000; and the famine from the potato rot in Ireland, and the effects from the muscadine in France, are familiar to all. Their influence extends over the whole vegetable and animal kingdoms. Almost all vegetation is found to be swarming with parasites. In the animal kingdom they are found upon or within almost every species of animal. They are found upon insects, upon the crustacea, fishes, reptiles and birds, and in many instances the different genera and species of mammalia have their own peculiar parasites, consequently the field for investigation is almost boundless. They are of different species and differ in size, in form, in habits, in power of propagation, in development, as many species pass through several stages or forms before they arrive at individual maturity. They also differ in the effects they produce upon organic bodies. Some species swarm over the mucous membranes in countless numbers without producing any injurious effects. Others again are as fatal in their effects upon living bodies as the most deadly poison, not only causing the pestilence amongst human beings, "that walketh in darkness and destroyeth at noonday," but they destroy our domestic animals by millions and the annual loss of cattle, sheep and swine, from parasites, has an influence upon the commerce of the world. They are found in all the cavities and tissues of the human body; they are found between the teeth, on the mucous membrane of the nostrils, the mouth, on the skin, within the alimentary canal, and they have been found within the bladder, the liver, the lungs, the eye and the brain.

They bore through the tissues in such vast numbers that I can bear evidence of having seen what we estimated at 200,000 trichina to the cubic inch of human muscle, and it has been estimated that 20,000,000 of these animals have invaded, at one time, the human body.

Individually their effects are almost imperceptible, but as their numbers multiply indefinitely they become collectively a power which is irresistible. Although the evils which they produce are almost incalculable, still micro-organisms are the scavengers which bring about decomposition of dead organized bodies and return the elements of matter back to their original source, consequently they are agents for both good and evil. Is it not remarkable, then, that a subject so full of interest and importance to the medical profession as that of parasites should have received so little attention from the members of our State Medical Society? We have had a paper on bacteria and one on entozoa, but this, I believe, is the first attempt to bring the subject of parasites, embracing the various forms and the effects which they produce, before our Society.

Unfortunately, the time limited to each paper gives only an opportunity of presenting a mere outline of this important subject. We shall not attempt to give a description of the different kinds of parasites, as only twenty minutes is allowed for the reading of a paper before the Society, but we will endeavor to present in a condensed form information which is now scattered unclassified through our medical journals. The subject is one undeveloped, and each year new facts extend our knowledge of this wonderful department of organized bodies. We shall class all those organisms which live on or draw nourishment from the human system as parasites, consequently we divide parasites into microzymes or microphites; also adopt the division of vermes and insects.

We use the word microzyme as the generic name for those micro-organisms which invade the human body, and which certainly may be regarded as parasites as well as the other two classes. Each of these divisions is again subdivided, presenting a long array of parasites.

The microzymes or microphites, from their minuteness in size, tenacity of life, wonderful reproductive power, and the effects which they produce, are by far the most important class of parasites. They are, however, at the boundary of human knowledge and are shrouded in uncertainty; consequently there is uncertainty as to their origin, also uncertainty as to their division into vegetable or animal organisms, also uncertainty whether one form is capable of changing into that of another, uncertainty as to their proper classification, and also to what extent they may be modified by the conditions in which they are placed. Thus we see there is a wide field open for future investigation.

The latest classification of microzymes I have seen is that of Luerssen. He makes fourteen varieties, all of which might probably be embraced under the general names micrococci, bacilli, filiara, vibrio, spirillum and bacteria. These are again subdivided as we see in the different varieties of micrococci and bacilli.

We tabulate the principal parasites which invade the human body as follows:

HUMAN PARASITES.

	Name.	*Probably of*
MICROZYMES.	Micrococci	Small-pox.
		Cow-pox.
		Measles.
		Scarlatina.
		Varicella.
		Erysipelas.
		Syphilis.
		Gonorrhœa.
	Bacilli	Typhus fever.
		Typhoid fever.
		Tuberculosis.
	Vibrio.	
	Filiaria.	Elephantiasis.
	Spirillum	Relapsing fever.
	Bacteria	Septicæmia.

Entozoa.

VERMES.	Cestoda	Tænia elliptica.
		“ flavo punctata.
		“ medio canellata.
		“ nana.
		“ solium.
		“ bothriocephalis candatus.
		“ bothriocephalis latus
	Nematoda	Ascaris lumbricoides.
		“ mystax.
		Oxyuris vermicularis.
		Filaria medinensis.
		Dochmius duodenalis.
		Trichocephalis dispar.
		Trichina spiralis.
	Trematoda	Monistoma.
		Distoma.

Epizoa.

INSECTS.	Acarus scabei.	
	Pediculida	Pediculus capitis.
		“ vestimenti.
		“ tabesentium.
		“ pubes originalis.
	Pulix	Pulix initans.
		“ penetrans.
	Ixodia	Ixodes americanses.
		“ numarias.
		“ erenatus.

Undoubted vegetable parasites and their diseases.

MICROPHITES.	Achorion schonleinii.	Favus.
	Trichophyton tonsurans.	Porrigo scutulate.
	Microsporon andonini.	" decalvans.
	" mentagrophites.	Mentagra.
	" furifur.	Tinea chloasma.

Thus we have attempted to tabulate in a condensed view the principal parasites which infect the human body.

For a full description of some of these parasites, the works of Kuchenmeister and Cobbold may be consulted.

The different species of microzymes, although closely resembling each other, are supposed to produce as widely different effects as the seeds of different vegetables. We know that cabbage, mustard and turnip seeds have a similar appearance, but the vegetables produced from each of these seeds are as distinct as swine are from sheep, or sheep from goats.

If this view is correct, we see at once what a vast variety there must be of organisms which have not yet been classified. A whole field of natural history lies open for future investigation, presenting for our young physicians an opportunity to add something to human knowledge.

The next question of interest in the investigation of parasites is their origin. How do they come into existence? Does this immense variety of organisms arise de novo, are they of equivocal generation? The ancients believed in their spontaneous origin, but this view is not popular at the present time. A majority of scientists now regard all life as proceeding from life, and that physical forces alone are not capable of producing life or living beings.

It is a question, however, which certainly is far from being settled, and one that takes us to the very boundary of human knowledge, the boundary between mineral and organized bodies, also between vegetable and animal life. We know that the most of parasites are of the simplest organization. Many of them are but mere microzymes or microphites, as we have classified them, and many of them arise in a region far beyond the power of human vision, even aided by the most powerful microscope.

The history of life upon our globe as seen through the different geological formations, shows us that its first appearance was associated with organisms extremely simple. Geology tells us that an extensive series of water-formed rocks were first formed upon our globe, in which no evidence of life is found. In the Laurentian rocks, which belong to the upper series of these formations, we find the Eozooan Canadense. This is the first appearance of an organized body, but an organism so simple that it has been the subject of dispute whether it presented the evidence of an organism produced by life, or a peculiar form of crystallization. It is now, however, generally admitted to have been the production of a living body. As we ascend through the Cambrian to the Silurian formations, organisms gradually become more complicated, favoring the theory of evolution. Are we to consider then, that only from these original germs all the life upon our planet has been evolved, and that the myriads of simple organisms around us at the present time, including the various forms of parasites—the germs of small-pox, measles, scarlet fever, and other contagious diseases which appear to be caused by living organisms, are the lineal descendants of those germs that were created in the infancy of our globe, and through all the vast period of millions on millions of years, these simple organisms, including parasitic germs, have scarcely undergone any change, while other germs starting from primitive cells have gone through all the evolution of forms, terminating in the highest order of animal life. Life must have originated upon our globe at some period, and does nature seem less able to evolve life now than in those ancient days? Are not the various forms of simple organisms more abundant now than at any other period in the history of our globe? The more we become acquainted with the laws governing matter, the more we see the evidence of the correlation of physical into vital forces. Every moment we know that dead matter is being converted into living in the food that we eat, and food sustains life just as certainly as fuel does fire. Life increases in quantity indefinitely; and as force is not created, where, we may ask, does this increase in quantity of vital force come from if not from the forces connected with matter? Two living organisms even of the highest class of animals, in the course of a few years may have multiplied and produced millions, and each of the offsprings will have as much vital force as a parent. Vital action arranges the atoms of matter into certain organic forms, and these forms are based upon the development of cells, and living bodies, as we know, are composed of cells—cells have within them a nucleus—the nucleus has within it nucleoli—this nucleoli, as well as the cell, is formed out of protoplasm—and protoplasm out of certain elements of matter, and these elements of matter have associated with them physical and chemical forces, and forces which certainly sustain life in the food that is eaten;—why then, we would ask, is it impossible at this present time for these forces to produce the peculiar *combinations* of matter, and give rise to vital action and originate simple organisms similar to what must have occurred in the early history of our globe?

But without requiring a spontaneous generation of life or living germs to produce *all* our infectious diseases, is it not possible that we have a rational explanation of the origin of *some* of our contagious diseases, from a modification of the cells of living bodies already in existence? Living bodies on this globe are composed of cells. Cells may undergo changes or transformations. Thus may not some of our contagions arise from a modification of the normal cells of living bodies, the cells becoming parasites? For instance, the stem of a pipe pressing upon and irritating the epithelial cells of the lip, may produce an abnormal cell, and give rise to the disease known as epithelioma, in which a cell is produced capable of reproduction and destruction of healthy tissue; or a blow on the breast may modify some of the mammary cells and give rise to scirrhus. We know that some parasites undergo most wonderful modifications, and that all living bodies are continually undergoing changes, upon which the theory of evolution is founded, and we think it possible that cells in accordance with physiological laws may also undergo changes. We are told that an epithelial cell is capable of an independent life. Carpenter tells us, in his physiology, "That the isolated epithelium cells have been seen to swim about actively in water by the agency of their cilia for some hours after they have been detached from the mucous surface of the nose, and the ciliary movement has been seen fifteen days after death in the body of a tortoise in which putrefaction was far advanced." Virchow also states that "If we take a single ciliated cell, after entirely isolating it from the body, allow it to swim about, and wait until a state of complete repose has declared itself, we can again call forth the the peculiar movement of its cilia by adding a small quantity of potash or soda to the fluid," also that "the ciliary movement is maintained in the dead body at a time when other parts have begun to putrefy. The ciliated epithelium of the frontal sinuses and trachea, is found in human corpses in a state of perfect excitability thirty-six to forty eight hours after death, when every trace of irritability has long vanished from the remainder of the body." Is it not possible, then, nay probable, that the cells already produced by life in some of the higher orders of animals, may take on a modified and independent existence as parasites, and produce some of the specific diseases with which we are acquainted?

We would then say that we regard it as highly probable simple organisms are occasionally coming into existence, and by the laws of evolution are being developed into higher forms of life, and that it is more than probable that some of the organic cells of a living body may take on an independent life, and give rise to some of our infectious diseases.

One of the most important discoveries which has recently been made is the modification of disease germs by the medium in which they are developed, or, in other words, their modification by cultivation, so that their power to produce malignant diseases is changed. Each contagious disease has its own peculiar microzyme, which probably can be so changed as to produce either a mild or malignant disease.

It seems now almost certain that cowpox is but modified smallpox, and that the smallpox germ is being redeveloped in the body of the cow, is capable of producing a mild form of disease in the human system which is a protection against an attack of malignant smallpox. From experiments of Pasteur and Charveau we see that they have been able to modify the germs of other diseases, such as "splenetic fever," and "chicken cholera," and by producing mild diseases protect our domestic animals against deadly forms of disease. The subject opens up a new field for future investigation, the importance of which is almost incalculable.

We now come to the effects which parasites produce on the human system. On this subject we will be extremely brief. The question may be asked, How do they produce disease? We answer:

1st. By producing poisonous compounds, as septicæmia, from the decomposition of tissue.

2d. By changing the composition of the blood, as seen in typhus fever, yellow fever, plague, etc.

3d. By destruction of tissue, as in syphilis, cancer, etc.

4th. By irritation of the nervous system, as convulsions rising from worms, etc.

5th. By consumption of nutriment, consequently drain-ing the vital forces from the system, as when 20,000,000 of trichina invade the human body.

6th. By thrombus of the small arteries, as seen in anthrax, etc., etc.

7th. By local irritation, producing local inflammation, as we see in scabies and ringworm, etc.

To tabulate the diseases which we regard as produced from parasites, we may divide them into constitutional, local and mixed. In the first we have typhus fever, typhoid fever, yellow fever, plague, leprosy, variola, scarlatina, measles, varicella, influenza, tuberculosis, erysipelas, puerperal fever, surgical fever, pyæmia, hospital gangrene and trichinosis. In the second class we have syphilis, gonorrhœa, cancer, epithelioma, lupus, glanders, rabies,—then we have Asiatic cholera, malignant dysentery, purulent ophthalmia, diphtheria, mumps, and probably pertussis. Syphilis and cancer, at first local, become constitutional diseases.

Of parasitic skin diseases we have scabies, tonsurans, declavans, sycosis, chloasma and favosa.

Thus we have endeavored to give a brief outline of the principal parasities which invade the human body, and the effects which they produce upon the system. We have seen that this is an undeveloped department of science, consequently absolute precision has not yet been acquired, as much of our knowledge on this subject is fragmentary. We have presented pioneer views which we believe show the direction this department of science will take in the future when more fully developed, and that the vast variety of disease germs which present the evidence of being organisms, also present evidence that they occasionally arise *de novo* and are not the lineal descendants of those organisms that came into existence in the early history of our globe.

Our London Letter.

CHOLERA IN EGYPT—THE HARVEIAN ORATION BY DR. HABERSHON—MEDICINE AND RELIGION—THE SUMMER SESSION—THE COMING ELECTION AT THE COLLEGE OF SURGEONS.

London, *June* 30, 1883.

Some alarm has been caused by the report that an outbreak of cholera has occurred in Egypt. Later intelligence seems to show that many of the cases are rather cases of typhoid, and that no genuine epidemic of Asiatic cholera has taken place.

The Harveian Oration at the College of Physicians for this year was delivered on Wednesday last, 27th inst., by Dr. Habershon. After referring to the successive discoveries made by physiologists in different ages, Dr. Habershon spoke of Darwin and struck a different note to most of his predecessors when he maintained that though Darwin's facts are true, his deductions are not. Dr. Habershon is not alone in this. Many distinguished scientists do not accept Darwin's deductions as necessarily true. It is in fact but a theory. One of our weekly journals has, however, seen fit to call Dr. Habershon to account for his statements and also because his oration had a religious bearing. It is unfortunate that paragraphs of this description should promote the idea—already too prevalent among the public—that medical men as a body are opposed to religion. This popular fallacy is very widespread and at times gives rise to curious statements. Not long ago I heard a gentleman state that he only knew two medical men who took any interest in religious matters, although he was in a position which brought him in immediate contact with a large number of prominent practitioners of London. A gentleman who was present at the time, immediately corrected him by naming half a dozen others, among whom was Dr. Habershon, long well-known for his activity in this direction. It is not long since Dr. Lauder Brunton produced a volume on "Religion and Science," and Dr. Mortimer Granville—who not long ago was conducting *The Lancet*—has just produced a volume on "Some Difficulties of Belief." Perhaps a more important example is that of the work done by Dr. Chance, who, on account of his great Hebrew scholarship, is serving as a member of the company of the revisers of the Old Testament.

The summer session is now drawing to a close, and doctors as well as their patients are discussing the great question where to go? Another indication of the season is seen in the publishers' lists, where books on spas are numerous. Within the last few days several books of this description have appeared.

The coming election (next week) of two Fellows to seats in the Council in the College of Surgeons promises to be an exciting one. The candidates are fairly equal as to merit, but the question of allowing country Fellows to vote by proxy or by voting papers is a burning one, and will probably decide the election. The Association of Fellows of the College of Surgeons has brought pressure on the candidates to elicit their views on this important question. The justice of the demand made by the provincial Fellows seems self-evident.—*Medical Record.*

Antipyretic Action of Air-Baths.

In a communication to *Wratsch* (1883, Nos. 3 and 4), Dr. Traubenberg discusses the influence of air-baths upon the temperature, pulse, respiration, and muscular energy in the febrile state. Having a room so arranged that its temperature could be controlled, patients were brought in upon their beds without any covering; but at the same time the skin was diligently rubbed over the entire body, either with the bare hand or with a woolen glove, so that the skin was made red; then the patient was allowed to rest until the hyperæmia had faded, or until he felt cool, when the rubbing was resumed, and this was continued during the entire air-bath. The bath continued from twenty to sixty minutes, or, as the rule, half an hour in most of the cases. Without quoting the phenomena in detail, the general results may be given as follows: There was a decided, though not great reduction of temperature, both in the axilla and rectum; respiration became fuller and fell off about six to the minute on the average, the pulse likewise became fuller and decreased about thirteen beats in the minute. There were within certain limits considerable variation in the results, the effects being modified by the time of day, the greatest reduction corresponding with the time of the physiological ebb, which occurs between three and nine o'clock in the morning. The effects also varied considerably with reference to the temperature of the chamber itself. The least effect was obtained from the lowest temperature, on account of the rapid contraction of the vessels, and in high temperatures there was not sufficient radiation from the body. In this respect a medium range of temperature must be selected. The most appropriate temperature to use must be a matter of experiment with each case. The period of the fever also has an influence: the later in the disease, the more effect is noticed from the air-baths. With regard to the duration of the bath, which also must be considered as affecting the results; the author considers that Liebermeister's aphorism applies —"the effect is not proportional to the length of the bath." In other words, it is more advantageous to give more frequent and less prolonged baths than the contrary. Individual peculiarities also are important: The younger the patient, the more extensive the bodily surface, the less muscle and fatty tissues are developed, the greater is the radiation. There is less likely to be depression of the patient after air-baths than after the cold-water applications. They are also more convenient and easier of application.—*Centralblatt fur Chirurgie*, No. 21.

Microscopy.

UTILITY OF THE MICROSCOPE IN CHEMISTRY.—Mr. H. Reinsch recently read a paper before the ROYAL MICROSCOPICAL SOCIETY, containing much of interest. We have space only for a gleaning here and there.

It is stated that *Silica*, of all substances, yields the most varied and beautiful forms, resembling plants and ferns, often presenting, in the most glowing colors, five-leaved flower-forms in infinite varieties. To obtain these forms, we place a drop of 4 per cent. solution of potassium silicate on an object slide, then add a drop of a 2 per cent. solution of sodium bicarbonate, and then allow the liquid to evaporate at the ordinary temperature. After a few hours have elapsed, the most beautiful flower-forms will be found spread over the slide, and will be readily recognized by a pocket lens, but when examined by the microscope with the Nicol at 90°, will exhibit the crystals gleaming with a most magnificent play of colors.

The most minute traces of silica can be readily detected in a mineral, by melting a small sample of the substance with a little potassium hydrate, and dissolving it in a little water, and then placing a clear drop of the solution on an object slide in the manner previously indicated.

Glucina is very easily distinguished microscopically from *silica* and *alumina*. *Boric acid* is likewise very easy to detect, for from its 2 per cent. aqueous solution there is obtained, after evaporation, a series of very small plates hardly 2 mm. in diameter, which, when they are magnified 80 times, do not show any cross. If the residue of the boric acid be moistened with a drop of the 2 per cent. solution of sodium bicarbonate, the dried drop will be found to consist of beautiful polarizing spheres, which in their center enclose a small white cross. This, on turning the Nicol prism, also revolves. Occasionally dandritic stars instead of the spheres are formed.

The alkalies possess such optic properties that they can be definitely and certainly distinguished by the microscope. In making these tests it is best to employ the sulphates for examination, as they are the most constant in their composition, and, in the drying, the samples will not absorb moisture from the air, and so produce forms which may readily be recognized. Four per cent. solutions were made of the alkalies soluble in water.

The test with *potassium sulphate*, gives at 0° of the Nicol, a series of rhombic plates, which are not well defined; at 90° blue rims with yellow or red spots are developed. These can not be taken for any other alkali.

Magnesia may, even when present in the most minute quantities, be detected by the microscope. The sulphate forms colorless clusters of needles, which do not become colored even at 90°.

If a 2 per cent. solution of *iron sulphate* be mixed with a 1 per cent. solution of sodium bicarbonate, the drop soon becomes cloudy, and is covered with a gold lustrous film of the oxide. After drying the specimen shows no spheres, but if it is allowed to remain quiet for two days, small crystals of iron *carbonate* are formed. These show the phenomena of polarization distinctly, but in a very peculiar manner.

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RINGWORM FUNGUS.—Messrs. Malcolm Morris and G. C. Henderson were authors of a paper, which was read before a recent meeting of the Royal Microscopical Society, as we learn from the *Journal of the Society*, on the Life-History of Ringworm Fungus. It is stated that it was a paper of very great interest, as is always the case, in fact, whenever a disease can be traced to its source. The authors showed beyond controversy that the disease has its cause in a variety of the species of *Penicillium*, but they did not determine whether it belonged to a known variety, or whether it was some specific form. We greatly wish that some of the subscribers of the MEDICAL NEWS would take up the investigation, and settle the question. Here certainly presents itself an opportunity for original research.

Dr. Maddox said at the meeting, that it had given him much pleasure to follow up all these experiments independently, and he could say that he had confirmed all that had been stated. It was very curious and interesting to watch the growth of these forms, which he could be sure that he had never seen figured anywhere before. He had not tried the incubating process, but found that the growth took place at the ordinary temperature of a room, only under these conditions it went on more slowly. He thought they might take it as being really proved that this fungus was the cause of the disease, but whether or not it was a distinct form he was unable to say. The bearing of a subject of this kind upon the apparatus which he had exhibited was obvious; it might readily be used in a large school room when ringworm was prevalent, and, by catching the germs, might prove that they were carried about in the air from child to child.

Mr. Morris, in reply to an invitation from the Chairman, said that he merely wished to point out that all previous observers who had used fluid had met with the difficulty that other germs and fungi got mingled with it. What was claimed for their procedure was that in using gelatine-peptone the growth went on in the substance of the jelly, so that it was quite possible to mark down a particular spore and watch it from day to day. They had noted that the fructification did not take place until the jelly had dried down to a certain degree. The fungus might possibly be a variety of *Penicillium*, but they had tried to produce the thing backwards with *Penicillium* and had failed, as all previous observers had done. It had been believed that this fungus belonged to a separate group, and that it was a *Mucor*.

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WE make the following extract from a notice sent to the members of the American Society of Microscopists and to microscopists in general. Referring to the meeting to be held in the city of Chicago, beginning Tuesday, August 7th, 1883, the notice states:

"It is very desirable that authors have their papers ready to leave with the Secretary at the close of the meeting if possible, with drawings, etc., complete, that the publication of the proceedings be not delayed. It is also requested that drawings for illustration of papers be made with clear outlines, and lined shadings, so as to allow of reproduction by the Photolithographic process, as much greater fullness and perfection of illustration can thus be attained with the means at the command of the Society.

"At the meeting in August, full provision will be made for illustration, by projection apparatus, of any article whose authors may so desire, and it is hoped that many will utilize this means for the more complete presentation of their papers. A special hour will be allotted each day to the exhibition of objects and apparatus referred to or described in communications read before the Society, and it is believed that this will be a feature of special interest. It is also expected to set apart an evening for the presentation of methods of work by accomplished specialists, including staining, section-cutting, mounting, micro-photography, etc. A general microscopical soiree will be held on another evening, and members are requested to bring instruments and slides with them. The exhibition of instruments and accessories by makers and dealers, promises to be unusually fine.

"A cordial invitation is extended to all workers in any department of microscopic investigation, to attend this meeting of the Society and join its membership, to contribute some of the results of their study to its Proceedings, and to enjoy its opportunities for acquaintance with one another's work. Western microscopists are especially reminded that such an opportunity of meeting with their brethren of the older States may not soon again occur.

"Those who intend to be present should notify the Chicago committee or the President or the Secretary of this Society as early possible.

"ALBERT McCALLA, President, Fairfield, Iowa."

CHANGES OF UTERINE MUSCULAR TISSUE AFTER PARTURITION.—Prof. Wojtschechoffsky has examined, microscopically, ten uteri, removed from women who died within thirty-five days *post-partum.* He offers the following as the result of his investigations:

1. The fatty degeneration of the uterine muscular tissue, upon which the diminution in size of the uterus depends, begins immediately after parturition, and covers a period of more than five weeks.

2. The degeneration attacks alike all parts of the organ (fundus, corpus and collum.)

3. It could not be ascertained whether the process began

at an earlier period in the outer or inner muscular layer of the uterus.

4. The interstitial tissue of the uterus does not take an active part in the process of involution.

5. The process of obliteration of the blood-vessels covers a greater period than the entire involution.

6. The appearance of free pigment in the uterus is not stationary.—*Deutsche Med. Zeit.*

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MICROSCOPIC EXAMINATION OF THE BRAIN AND CORD OF AN EPILEPTIC.—D. J. Kingsbury (*Jour. Nerv. and Ment. Dis.*, January, 1883) gives the following results in the histological examination of the brain of a chronic epileptic: In the frontal lobes and around the fissure of Rolondo, in the cells of the neuroglia, with some obliteration of the perivascular spaces.

In the horns of Ammon, there were, in addition to the above, cloudiness of the neuroglia cells, perivascular spaces scarcely noticeable, and ganglionic cells more granular than usual. Blood-vessels dilated.

In the occipital lobe, dilated vessels, with spots of softening one-fiftieth of an inch in diameter around many of them, and increase of neuroglia cells.

In the ganglia the white matter was full of capillary infarcts not yet having undergone softening, showing distinct masses of blood corpuscles. Ganglion cells swollen, pigmented, highly granular. Some of the vessels had undergone amyloid degeneration.

In the medulla, increase of the cells of the neuroglia, dilated blood-vessels, swelling and granular condition of the ganglion cells.

In the spinal cord, increase of the cells of the neuroglia in the columns of Goll, and an occasional infarct or spot of softening.

The pathological changes in the brain were more marked in the right than in the left side.—*Md. Med. Jour.*

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THE Cincinnati Board of Health of saloon keepers, to turn the disgust of the citizens from them, after organizing, appointed Dr. T. H. Minor Health Officer, with entire control of the Health Department, without hindrance from them in anything. It is believed, however, that the Doctor will not accept to serve under a lot of whisky dealers.

Gleanings.

"UNDER THE SURGEON'S TOUCH."—Dr. Moses Gunn, Professor of Surgery in Rush Medical College, Chicago, while conducting a surgical clinic on March 10, 1883, introduced to the class an infant, 10 weeks old, named Willie Haas, who was suffering from a nævus, situated near angle of mouth and about the size of a fifty cent piece. The child, according to Prof. Gunn's statement, was imperfectly developed and the growth of the vascular tumor was rapid. The injection of a solution of chloride of iron, a remedy used by the Professor in many other cases, was selected as a means of relief. Immediately after the injection of 3 drops of the solution, the child became slightly convulsed and died within thirty minutes. Prof. Gunn's explanation of this unfortunate termination was that the babe died of shock. An inquest was held upon the remains and we are glad to record the fact that Prof. Gunn was exonerated from blame. The old adage "He jests at scars that never felt a wound" is often exemplified in the practice of surgery. But all who are acquainted with the skill, attainments and superior abilities of this distinguished surgeon will at once realize that no foresight, however keen, no precaution, however complete, could have prevented this sad termination. That death occasionally takes place in spite of every care and attention is an unanswerable argument in favor of the use of safer agencies when they are available. When several remedial agents possessing equal curative powers are at the command of the surgeon, he is not always at liberty to select the one whose use is attended with the least danger, for the reason that many other matters present themselves for consideration in determining the selection. Hence, in the practice of busy surgeons instances occur almost daily in which these dangerous measures are not only indicated but demanded. The report of this case, while it reflects no discredit upon the eminent gentleman in whose hands it occurred, will we hope serve to encourage other surgeons to weigh carefully evidence in favor of and against all dangerous remedies and procedures before putting them into use.—*Western Medical Reporter.*

ATROPHY OF THE BRAIN AFTER AMPUTATION OF AN EXTREMITY.—The Academy of Medicine, at its last meeting, listened to a very interesting paper and report of a case by M. Bourdon, in which there was a local atrophy of the cerebral structures after amputation, this being the seventh example which this observer had collected. In a previous memoir on the subject M. Bourdon had demonstrated that the amputation of a member causes atrophy of the upper portion of the cortical layer of the convolutions in the motor region, as a result of the loss of functional activity. This is an important fact from a physiological stand-point. The present illustration also shows that this degeneration may extend also to the central portions of the cerebrum, and secondarily as far as the medulla oblongata. In this case an amputation performed forty years before, in which the arm was removed, had caused a paralysis of the leg on the same side. This remarkable result, it is seen, was a remote one, and only appeared toward the end of the patient's life. The autopsy showed an atrophy of the cells, and some of the nervous fibers which preside over movements of the leg, an atrophy which apparently had been very slowly and gradually established.

The case, in brief, was that of an old soldier, who had submitted, forty years before, to a disarticulation of the left arm, and who died suddenly with cerebral congestion. Up to this time he had never experienced any cerebral disorder; but during the last years of his life the lower extremity on the same side as the amputated arm was gradually becoming paralyzed. At the examination of the brain, on the right side, there was noticed a decided depression of the ascending frontal convolution. This was also observed in the paracentral lobule and the convexity of the right hemisphere. The lateral ventricle of the same side was considerably enlarged, especially at the level of the affected convolution, denoting a very extensive atrophy of the subjacent white substance. The corpus striatum also presented a depression near its center, and the optic thalamus was flattened. Sections of the medulla oblongata showed that the median raphe was deviated to the right, and very markedly atrophied. Upon carefully weighing the hemispheres, the right was found to be thirty-one grammes less than the left.—*Revue de Therapeutique Med. Chir.*, No. 11.

Perforated Felt Jacket in Spinal Curvature. — A case at present under treatment illustrates some of the advantages to be derived from the use of these jackets combined with muscular exercise. The patient, a female child, aged 11, came under my care in August, 1882, suffering from considerable excurvation in the dorsal region, for which she was wearing, at the time, a steel spinal support with arm crutches, by which her shoulders were being pushed almost up to her ears. A perforated felt jacket was made for me by Mr. Rorke, of North Street, Fitzroy Square, and instructions were given that she should exercise with the trapeze several times a day for a quarter of an hour at a time. Already in five months a decided improvement has taken place. The prominence in the back has diminished in size and elevation by half an inch, the shoulders are no longer pushed up to the ears, and the whole body has grown. The child can move her limbs with the greatest freedom, and much prefers the jacket to any instrument she has worn. Thus, in a most unpromising case, no resort to the surgical instrument-maker is required beyond the first manufacture of the jacket, which can be softened and reapplied by the surgeon as often as necessary, and which is taken off by the mother once a fortnight for purposes of cleanliness, while necessary exercise is not interfered with. I notice that, in a recent pamphlet by Mr. Noble Smith, felt jackets are spoken slightingly of, and their porosity in particular is declared to be "a myth." However true this may be of the material originally used for these jackets, it is, I believe, a mistake in regard to the perforated felt, in which the pores are good-sized holes perfectly visible to the naked eye. For efficiency, lightness and cheapness, these jackets leave, I venture to think, little to be desired.—H. N. HARDY, F.R.C.S.E., *Brit. Med. Jour.*

SUNDAY SICKNESS.—This alarming and prevalent malady was well known at the beginning of the century. It was described fully sixty years ago, and, unlike most of the acute diseases, its type has remained unchanged. In the Boston *Medical Intelligencer* of 1824 the disease is described at considerable length under the name *Diei Dominici morbus*.

It is of an intermittent type and usually attacks the patient by violent paroxysms which return every seventh day. It may savor of superstitition to mention it, yet it is an observed fact that these paroxysms return only on the Lord's day. On account of this periodicity, some have thought it to be a singular kind of ague, especially as it is attended with a certain degree of coldness, though the symptoms of shivering which are usual in that complaint are not present.

The paroxysms commence at different periods, but generally in the morning of the Lord's day. A coldness has first been noticed about the region of the heart and a dullness in the head. This is followed by yawning and a sort of lethargy.

This disease appears to stupefy those who are subject to it, so that however they may appear to suffer they are seldom if ever heard to complain. The author has known persons under other diseases mourn on account of their confinement from public worship, but the victims of this extraordinary disorder were never heard to do so.

Recovery is rapid. The next day the patient is as active as if he had never been subject to any kind of indisposition. He appears well until the approach of the next Sabbath; though most of the faculty agree that there is a low feverish heat to be perceived during the days of interval, which is called *febris mundi*, or the worldly fever. Those who are subject to this malady at times feel an access of chills, together with a most curious sensation of listlessness about the hours of secret retirement and family devotion.

There is reason to fear that it is contagious. Children have been known to receive the infection from their parents.

There is difficulty in finding a cause for these symptoms. On close investigation they have been found to have arisen from excessive indulgence, and feeding without reserve on the sour fruits of the flesh and the windy diet of the world. Persons who sit for many hours together in close rooms, with vain and carnal companions, are peculiarly liable to the malady. It has been observed that a great delight in cards and other games, a frequent attendance upon feasts, drinking clubs, and the circus, are among its certain forerunners.

As to treatment the writer was in doubt. He thought of prescribing draughts and boluses, but when he found his patients well and active in their business on the following day, he desisted from his treatment lest they should think he was forcing medicine upon them.

THE MEDICAL LANGUAGE OF ST. LUKE.—By the Rev. William Kirk Hobart, LL.D. The object of the volume before us is to prove from internal evidence that "The Gospel According to St. Luke" and "The Acts of the Apostles" were written by the same person, and that the writer was a medical man. The plan of the book may be briefly described, and we would take the opportunity of stating our belief that the mode of dealing with the subject is eminently scientific and, so far as we know, novel. All the words which are found only in the Third Gospel or in "The Acts of the Apostles," or almost exclusively in these two books, are named, and quotations are given from Hippocrates, Galen, Areteus and Diascorides to show that the same words were in common use among medical writers to express the same meaning. The result of this study is certainly to prove beyond reasonable doubt that in the Third Gospel and in "The Acts of the Apostles" the descriptions of the miracles of healing were written by one who not only was familiar with the diseases in question, but who used such language as it would be unreasonable to suppose any one but a medical man could have had at his command; and, further, that in dealing with non-medical subjects, he wrote in a style common to the Greek medical writers of the time, and one which a physician would be likely to employ. This peculiarity of phraseology being identical throughout the two books in question leaves no doubt that they are the work of the same hand. A very interesting note is appended at the end of the volume, showing the probability that, in accompanying St. Paul on the three occasions referred to in "The Acts of the Apostles," St. Luke was present as his medical adviser.—*Med. Times and Gaz.*

WHOOPING-COUGH REMEDIES. — M. Pierre Vigier, in a French journal, gives a few prescriptions. First he recommends drosera to be given in the form of alcoholate for a child one to two years of age, 20 drops three or four times a day in a little sweetened water; for older children, from one to four teaspoonfuls in the course of the day. The favorite remedy of Dr. Delpech is one frequently employed in this country, namely: 30 grains of powdered cochineal and 20 grains of subcarbonate of potash in half a pint of water, flavored and sweetened. M. Vigier gives, as a modification of this formula, a recipe for a preparation which will keep, as follows: Powdered cochineal, 15 grams; subcarbonate of potash, 12 grams; boiling water, 600 grams; sugar, 900 grams.

Infuse the substances for half an hour, add the sugar, dissolve with a gentle heat, and strain. Children of one to two years may take two to three teaspoonfuls per day; older children from three to six teaspoonfuls; and adults two tablespoonfuls per day.

Dr. Beauchene prescribes the following powder: Calcined magnesia, 8 grams; sugar, 2 grams; extract of belladonna, 20 centigrams; kermes, 10 centigrams; orris, 60 centigrams. Mix the extract and the sugar, add the kermes and the orris, then the magnesia and triturate to homogeneity. Divide into fifty powders. Children of one year may take three per day between meals; children from two to three years of age, five; and older persons, eight.—*Can. Med. Record.*

NAPTHOL IN ITCH.—The *Med. Times and Gaz.*, February 3, 1883, says: Introduced by Prof. Kaposi, of Vienna, napthol has been substituted by him for tar in some affections of the skin, as eczema, psoriasis, prurigo and especially itch. It has scarcely any odor, and even after long exposure to air only becomes of a pinkish color, which does not permanently stain the linen. Prof. Hardy, it is stated in a *these* by Dr. Guerin, has substituted a very simple formula for the complicated one of Kaposi, consisting in vaseline 100 parts to 10 parts of napthol. The pulverized napthol is dissolved in half its weight of ether, and is then mixed with a portion of the vaseline, and heated to 30° to 40° Cent., until the ether is entirely evaporated. The rest of the vaseline is then added, and the mass carefully triturated. The homogeneous pomade which is produced is kept secluded from the air. It may be applied at all periods of itch, whether complicated or not; and it is applicable also to the eruptions which supervene in the course of itch, and for which sulphur ointment is unsuited. The furrows are by this ointment rapidly freed of their inhabitants, and other eruptions disappear. The treatment lasts from ten to fifteen days, which is very much longer than Prof. Hardy's rapid treatment by sulphur; but when we consider how long the itching persists often after the cure by sulphur—sometimes obstinately continuing for months—the treatment by napthol is practically the shorter of the two. M. Guerin has never observed any ill effects upon the kidneys result from napthol. —*Med. and Surg. Reporter.*

ERGOT IN THE RADICAL CURE OF HYDROCELE.—J. E. W. Walker, M.R.S.C.E., L.S.A., late H. M. 55th Regt., writes: "In bringing this matter before the profession, I feel bound to admit that but for a curious accidental circumstance the agent might never have presented itself to my notice. In the year 1875, I proposed to operate upon a patient, aged 65, for the radical cure of hydrocele of the tunica vaginalis.

The disease had existed for about ten years, and had been repeatedly emptied by other surgeons. At this time I removed, by the trocar and canula, about twelve ounces of serum, and, by accident, took from my pocket a bottle containing about two drachms of liquor ergotæ (Battey) in the place of the same quantity of tincture of iodine, which it was my intention to throw into the cavity. On my return home I discovered the mistake, and watched the patient for some hours at intervals. No inflammatory state occurred, and there was entire absence of pain, so that I allowed my patient to return to his ordinary occupation the next morning. To the present time there has been no return of the abnormal secretion. I have since, on two occasions, used the same plan with perfect success, and I attribute the cure to a specific action exerted by ergot, which re-establishes the balance between secretion and absorption."—*Brit. Med. Jour.*

UMBILICAL HERNIA OF A PART OF THE STOMACH-WALL.—A boy, thirteen years of age, had a tumor, about the size of a walnut and of a bright red color, at the navel. It was covered with mucous membrane, which secreted, upon being handled, a viscid fluid of acid reaction. The tumor, which was attached to the umbilical ring by a slender pedicle, remained always the same size and was irreducible. No opening into the interior could be discovered. The mother stated that the cord had been of great thickness, and, near the naval, was funnel-shaped. It was ligated very close to the body. When the end came away the tumor was noticed. There had never been any food or fecal matters discharged from the navel, nor did the secreted mucous ever have a fecal odor. The pedicle was cut through, and the wound rapidly cicatrized. Dr. Tillmanns, who reported the case (*Centralblatt fur Chirurgie*, March 3, 1883), believed it to be an ectropia ventriculi. He stated that the secretion possessed the power to digest fibrin, and further, the microscopical examination of the tumor showed it to be composed of gastric mucous membrane from the neighborhood of the pylorus. The portion of prolapsed stomach was cut off with the umbilical cord, this little piece being at the distal end. The opening into the stomach was closed probably at the time of birth.

TETANUS HYDROPHOBICUS.—The following case of a peculiar affection, first described by Rose, is related by Dr.

Von Wahl (*Centralblatt fur Chirurgie*, January 6, 1883. A man, forty-one years of age, while intoxicated, fell down some steps, striking his forehead just above the right orbit. Very extensive ecchymosis of the right cheek followed. At the end of a week the patient felt well, but on the ninth day lockjaw set in, there was right facial paralysis, and the right eye could not be closed. The left eye, on the contrary, was spasmodically shut, the teeth were pressed firmly together, and the muscles of the cheek, even on the paralyzed side, were as hard as a board. The sensibility of the skin on the right side of the face was somewhat diminished. The movements of the head were at this time perfectly free. On the following day it was necessary to perform tracheotomy on account of dyspnœa, and on the day after that spasm of the right trapezius muscle appeared. The pupils at first responded slowly to light, but were now strongly contracted. The patient died of pneumonia. At the autopsy, the right vertebral artery was seen to be considerably smaller than the left; and the right half of the pons was also smaller than the left, while the pyramidal and olivary bodies on the right side appeared broader and fuller than those on the left. There was no lesion (abscess or tumor) of the pons. There was no fracture of the cranial bones nor injury of the cranial nerves.

Recurrence of Scarlatina Within Eight Months.—F. P. Kinnicutt, M. D., in *N. Y. Med. Record*, says that he attended a male child aged five, in a typical attack of scarlet fever, having a favorable termination; eight months afterward he was again called to the same child, and the diagnosis of scarlatina was again made; slight albuminuria made its appearance in the third week and still persists; patient has suffered with a number of boils on various parts of the body.

Dr. Kinnicutt remarks that a second infection of scarlet fever occurring within the short period of eight months, in which all the characteristic symptoms are manifested with as much prominence as in the primary attack, is sufficiently rare to be worthy of record. The doctor has only been able to find six other recorded cases of a similar nature; the shortest and longest period of recurrence were, respectively, thirty-six days and nine months.

The above case conflicts with the terse and generally accepted statements of the various text-books: "One attack protects from a second."—*Ibid.*

REMOVAL OF CARIOUS PORTIONS OF THE VERTEBRAL BODIES.—Dr. Boeckel relates the history of a case in which he removed the carious portion of the bodies of two dorsal vertebræ, by means of the sharp spoon, with gratifying results. From his experience in this case and in operations upon the cadaver, the writer concludes that it is not so difficult as is usually supposed to reach the anterior portion of the spinal column. The resection of an inch to an inch and a half of one rib affords room enough for the finger to reach the bodies of the diseased vertebræ. The danger of wounding any of the great vessels lying in front of the spinal column is not so great as it seems, as the pus has already formed a sinus which serves as a guide to the diseased bone. The bodies of the lumbar vertebræ may be reached by an incision made at the outer border of the sacro-lumbalis muscle, as for nephrotomy. The same operation is indicated in gunshot wounds of the vertebral bodies. The difficulty in such cases lies less in the operation itself, than in the uncertainty of the diagnosis respecting the location and extent of the injury to the bone.—*Schmidt's Jahrbucher*, March 14, 1883.

THE DEATH OF A WELL KNOWN DWARF.—Mrs. Burnell, a remarkable dwarf, who has been on exhibition in nearly all the leading museums in the United States, died in New York recently in the twenty-seventh year of her age. She was born on October 18, 1856, in Richmond, Vermont. Her father was a dwarf but her mother was a woman of ordinary size. In January, 1880, she was married. In September Dr. Elliott Richardson, of the University of Pennsylvania, successfully performed the Porro Muller Cæsarean operation upon her, and reported the case in the *American Journal of Medical Sciences* for January, 1881. Her child through careful nursing developed into a strong boy, and he has been her constant attendant at the museum at which she has been exhibiting. He is now two and one-half years old, and is nearly as large as his mother, who at the time of her death was thirty-nine inches in height and weighed forty pounds. Mrs. Burnell's death resulted from a complication of diseases, mainly Bright's disease

FEVER DEPENDENT UPON FECAL ACCUMULATION.—A rise of temperature is often observed in women after childbirth or ovariotomy, which subsides after a free movement of the bowels. In addition to the fever there are frequently symptoms of peritoneal irritation—pain on pressure, meteorism, elevation of the diaphragm, cyanosis and rapid pulse. To explain these symptoms, Dr. Kustner instituted a series of observations upon women after ovariotomy (*Zeitschrift fur klin. Medicin*, vol. v). He found that the temperature rose when the fecal matters had passed into and distended the rectum. By reason of increased peristalsis and from direct pressure of the distended rectum, the wounded surfaces were disturbed and a resorption of the secretions induced. This gave rise to fever. Perhaps also the retained fæces caused a more rapid decomposition of the secretions. The same explanation will answer also for similar conditions in the puerperal state, and the author asserts that peri-uterine exudations are often due to the same cause.

A Case of Tape Worm Passed by the Mouth.—A woman seventy-nine years of age, was admitted April 3rd, 1879, at the Poplar and Stepeny Sick Asylum. There were no symptoms of intestinal irritation, except an attack of diarrhœa in March, 1881. During the night of April 15th, 1882, the nurse on going to the patient, noticed what in the dim light looked like a piece of tape, projecting from her mouth: on extracting this it was followed by more: after withdrawing several feet of it she became alarmed and hurried off to the night superintendent with the startling news that she "was afraid that she had been pulling a woman's guts out." By the aid of more light the superintendent discovered that the object was the part of a tape-worm, and withdrew, in an over-hand manner, the entire worm, tail first and apparently dead. It was found to be a perfect tinia-media cancellata, measuring twenty-eight feet and bearing its head. From this time the patient gradually sank and died in a few days.—*London Lancet.*

Treatment of Gonorrhœa.—A rather large number of American, German, French and English physicians, as we see by reading through the many different foreign and domestic medical journals, of late have been reporting very successful results in the treatment of gonorrhœa by the yellow oleum santali. We learn that the remedy invariably puts an end to the discharge within two days, but to prevent a relapse it has to be continued for two weeks or longer. From fifteen to twenty drops, three times daily, is the usual dose, which may be administered on sugar or in gelatine capsules.—*Med. and Surg. Reporter.*

INSANITY IN THE UNITED STATES.—The tenth census gives some interesting and suggestive facts relative to the increase of insanity in this country. The total number of insane in 1870 was estimated at 37,432, as against 91,997 in 1880—an apparent increase of over 100 per cent. This gives a ratio of one insane person to every 543 of the population—a much larger estimate than many observers will be willing to admit.

Book Notices.

A TREATISE ON DISEASES OF THE EYE. By J. Soelberg Wells, F. R. C. S., Professor of Ophthalmology in King's College, London, etc. Fourth American, from the third English edition; with copious additions, by Charles Stedman Bull, A. M., M. D., Lecturer on Ophthalmology in the Bellevue Hospital Medical College; Surgeon to the New York Eye and Ear Infirmary. Illustrated with 257 engravings on wood, and 6 colored plates; together with selections from the test-types of Prof. E. Jaeger and Prof. H. Suellen. 8vo.; pp., 846. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: R. Clarke & Co. Price, $6.50.

This work has met with great favor with the profession, both in this country and in England, as is evidenced from the fact that in this country it has reached a fourth edition, and in the latter a third edition. This is a very high testimonial of the excellence of a work that is devoted to a specialty, from the fact that such works are not usually sought for by general practitioners. A general practitioner contents himself with a single work upon a specialty—one that he understands to be a standard one of high order. We find, therefore, that a few special works have apparently large sales, and go through several editions; but a very large number of them, being in demand by only those who practice the specialty to which they are devoted, seldom reach a second edition. By the time the first edition is exhausted, in consequence of the limited number of their patrons, they become crowded out by other new works that have sprung up. We understand that Mr. Wells' work has been translated both into the French and German languages.

It is not surprising, on examining the work, that it has obtained so high a position as it has reached. It is the largest ophthalmological work with which we are acquainted, and its size, consequently, permits of a comprehensiveness, in treating of the affections to which it is devoted, that a smaller size would not allow. In addition, the author has entered fully into all the most important advances which have been made in ophthalmic science. He seems to have searched most thoroughly the literature of ophthalmology—standard works of the most distinguished authors, and medcal journals—in order to acquaint himself with and record all the most recent and established views of the most eminent specialists. There seems to have been nothing discovered pertaining to diseases of the eye which he has not noted. But, while he has labored to present the views of others, he has not contented himself with that alone, but has sought, in most instances, to make himself practically conversant with them, so as to be able, from his own experience, to form an independent and unbiased opinion as to their relative value. The author seems to have had unusual opportunities in studying all phases and kinds of eye diseases, not only in the way of treating such himself, but in witnessing the practice and operation of his colleagues. He has, therefore, kept constantly in view the purpose to make his work as practical and comprehensive as possible.

The student and general practitioner will find this work well adapted to their wants. Such need a comprehensive work, one that is full in its details, methodical, employing plain and easily understood descriptions and demonstrations. Having been prepared for the use of the student, it instructs him as he proceeds in studying it—not premising that he is already learned in ophthalmology.

The third American edition was published in 1880. In this edition not much change has been made in the author's text, but the editor has made many important additions. We would mention a number of them, but our space will not permit. It must suffice to say that they are such as increase much the value of the work.

In conclusion we will state, without hesitation, that the work of Mr. Wells is the most thorough, complete and comprehensive work on diseases of the eye that has ever been published in the English or any other language.

The publishers deserve great praise for the elegant style in which they have gotten out the work. Bound in very handsome half Russia, with raised bands.

A New School Physiology. By Richard J. Dunglison, A. M., M. D., author of the Practitioner's Reference Book, History of Medicine, etc. Illustrated with 117 engravings. 12mo.; pp., 314. Philadelphia: Porter & Coates.

This work is designed for public schools, and its object is to instruct young people in regard to the structure of the human body. Although it is termed a physiology, yet considerable anatomical information is contained in it—sufficient to give a young person a pretty correct idea of the various parts of the body.

For the class of students for which it is designed we regard it an excellent work. Of course, it is not adapted for medical students, not being intended for them; and yet we have met with candidates for graduation among medical students who could have been instructed from it.

We believe in instructing the laity in a knowledge of themselves. The more correct idea they have of the human body, the better for them and for physicians. In proportion to their own knowledge, they will be able to judge of the qualifications and merits of medical men, and appreciate their services. But what is still of greater importance, as their knowledge is increased, they will be able to improve their health, and lessen the diseases of the world, and finally bring about a greatly improved race of people.

We do not know how the work before us may compare with others of the kind, but from our knowledge of the high standing of the author in the profession, and his very extensive acquirements, and ability to get out a good work, we have no doubt that the work holds a front rank among school text-books, or at least it ought to, if teachers and trustees have ability to judge.

A Practical Treatise on Impotence, Sterility, and Allied Disorders of the Male Sexual Organs. By Samuel W. Gross, A. M., M. D., Professor of the Principles of Surgery and Clinical Surgery in the Jefferson Medical College, etc. Second edition, thoroughly revised, with sixteen illustrations. 8vo.; pp., 176. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: R. Clarke & Co. Price, $1.75.

A work of this character, by so eminent an author, will be in great demand by the profession. Although the male sexual organs are not subject to disease like the female, yet physicians are almost daily consulted by young men and men who are, or imagine they are, suffering from impotency, weakness, or some allied disorder of the venereal organs. And an affection of the kind, whether real or imaginary, always produces a remarkable depression of the mind; so much so, that it oftentimes requires all of a physician's efforts to counteract it.

It has been the author's aim to supply, in a compact form, practical and strictly scientific information, especially adapted to the wants of the general practitioner, in regard to a class of common and grave disorders, upon the correction of which so much human happiness depends. That the author has succeeded in accomplishing his object, it will be generally conceded. No one could be better qualified for the task, for his opportunities for observation, and his experience, have been very great. Those who have had difficulty in treating the affections discussed in the work will be greatly aided in the future by the rational pathology stated by the author, and the very plain description given as to treatment in the employment of either medical or surgical means.

THERAPEUTIC HAND-BOOK OF THE UNITED STATES PHARMACOPEIA: Being a Condensed Statement of the Physiological and Toxic Action, Medicinal Value, Methods of Administration and Doses of the Drugs and Preparations of the Latest Edition of the United States Pharmacopeia (Apothecaries' and Metric System); with Some Remarks on Unofficinal Preparations. By Robert T. Edes, A. B., M. D. (Harvard), Professor of Materia-Medica in Harvard University. 8vo.; pp., 397. New York: William Wood & Co.

The author of this small work has endeavored to supply briefly the information necessary to make it a convenient book for the practitioner. While not all the articles of the materia-medica are mentioned and described, yet sufficient have been for all the purposes of the treatment of diseases. Each medicine is concisely and plainly described, its dose given, and the mode of prescribing it stated—explaining its action, and the setting forth the diseases in which it is employed. The author frequently appeals to his own experience in suggesting principles of treatment; and, in fact, he often seems more inclined to elaborate principles of treatment than to merely mention the name of each disease in which each drug has been or may be used.

The alphabetical order is pursued, as in the U.S. Pharmacopeia. While not a pharmacopeia or a dispensatory, it is exceedingly convenient to turn to to refresh one's mind in regard to the description and properties of remedies, and the diseases in which they are used.

It will be found very useful to practitioners.

WOOD'S LIBRARY OF STANDARD MEDICAL AUTHORS. New York: William Wood & Co.

We have received three volumes of this valuable Library, too late to notice them separately in this number of the MEDICAL NEWS, but will give them attention in the next issue. One of the works is entitled "Hand-Book of Electro-Therapeutics," by Dr. William Erb, Professor in the University of Leipzig. Translated by L. Putzel, M. D. This is a work of 366 pages, and treats the subject to which it is devoted very thoroughly and in a systematic manner. It makes a most valuable addition to the volumes of this year's library.

Another work is "The Microscope and Its Revelations," by Dr. Wm. B. Carpenter, in two volumes. This is a reprint from the sixth and last London edition. It has sold, heretofore, we believe, for five dollars. It is the finest work on the microscope that is printed in any language. Subscribers to the Library will obtain a most valuable work in this one, at a very low price. The Messrs. Wood & Co. are certainly doing their best for their patrons.

Editorial.

THE CHOLERA.—As our readers are aware, the cholera has been raging to a frightful extent for several weeks in Egypt. At the time we write, the number of deaths occurring daily in Cairo, from the disease, is between four and five hundred. Such a mortality, in a city of its population, is indeed terrible, and must soon depopulate it, unless something is done to stay the disease. Previous to its appearance in Cairo, it prevailed at Damietta, and carried off the inhabitants daily by the hundreds. From last accounts, the mortality in that small city has been reduced from ten to twenty daily. But this reduction is no doubt due to the want of victims—those whom the disease had not destroyed having escaped from the pestilent-ridden city, although it was stated that a strict cordon had been established about it.

It seems that the present epidemic of cholera, from what we can learn from the most reliable sources, first broke out in Bombay, Hindoostan, in May last, probably soon after the great Hindoo festivals, which always take place on April 12; that the presence of the disease was concealed, and clean bills of health were given to out-going ships. We have understood that cases of the disease have appeared both in Havre and London, among persons recently coming from Egypt by ship, but by means of immediate isolation the disease did not spread, and ceased on the recovery or death of the imported parties.

The great annual festival at Mecca, near the Red Sea, had not taken place when the scourge made its appearance. We understand that the French Governor of Algiers issued an order, prohibiting the annual pilgrimage to Mecca, which will prevent those Mohammedans, residents of the country under his control, taking part in it; but the order of the Governor of Algiers does not apply to the Turks, Persians, North Aftricans, etc. It is to be hoped, however, that their governments will have wisdom enough to exercise their power to break up the festival this year.

We suppose every physician is inquired of every day if he is expecting an epidemic of cholera this season in this country. It is very natural that, under the circumstances of cholera prevailing to the fearful extent that it is in Egypt, the people should be excited about it. Egypt is not at the great distance from our country that it used to be. A few years ago it was regarded as far away, but, in these days of steamships, which, with their improved machinery, cross the Atlantic in seven or eight days, and are so multiplied that the ocean is filled with them, it seems right at our door, and a pestilence prevailing there seems close at hand. In consequence of the war which England has been recently carrying on in that country, and continuing still to maintain an army there, and having a sort of government over it, the intercourse between the two countries is very intimate. Of course, as strict a cordon as possible is preserved about all infected places. It is said that persons are killed daily by British soldiers in maintaining the cordon; but still it will be found impossible to confine the epidemic. The poison of the disease will find its way out; if not by means of persons burst ing through the cordon, it will in some other manner, and then by fomites it will reach England or France. Of course, cordons and quarantines will delay the progress of the pestilence, and through this delay, resulting from strict measures and the lateness of the season, we do not believe that cholera will reach this country this year. In the course of six weeks we can expect frost, and, as is well known, frost puts a stop to the activity of the poison, though it may not destroy it. Whether or not, escaping the disease this season, we may have it next season, we will not venture to say. It is not improbable that we may; for, setting forth westward, having started in the far East, it only becomes dormant on the approach of cold weather, and starts again on its travel, from the point it had reached, so soon as the hot weather has imparted to it activity. We hope we may be mistaken, but it is our impression that cholera will be rife in this country next summer—summer of 1884.

The *Sanitarian*, a journal devoted to hygiene, published in New York, very properly calls upon every town, city and village to clean up in expectation of cholera. There is no doubt that in filth the specific poison of the disease finds a *nidus* in which it multiplies, and its virulency is increased. Without a *nidus* of the kind the poison soon becomes exhausted, and the disease comes to an end. This has been demonstrated again and again. Frequently has cholera made its appearance in a place—attacking five or six, or fifteen or twenty individuals—and been immediately stamped out by disinfection and the enforcement of the most rigid hygienic rules. Danger from it may be delayed for some time, but perfect cleanliness, notwithstanding, should be instituted and kept up. The Bible says that cleanliness is next to godliness. Assuredly the contrary condition is oftentimes terribly punished—death and misery following in its wake.

In 1865, writes Dr. J. C. Peters, of New York, a high authority as regards epidemics, a German woman fled with her children from Odessa, on the Black Sea, to her home in Saxony, near Leipsic. She traveled nine days and nights, and arrived with one of her children sick with cholera in August. The disease broke out in Saxony, just on the eve of the outbreak of the great Prussian and Austrian war. Prussian soldiers contracted it and carried it down into Bohemia, and handed it over to the large Austrian armies, and the Prussians, on their return, respread it into the northernmost parts of Germany. If that one case could have been kept back, these huge armies and many cities would have escaped.

THE NEW BOARD OF HEALTH OF CINCINNATI.—Most unfortunately, the government of Cincinnati is controlled by politics. Nearly every department has at its head politicians, many of them of a very low order, whose highest objects are "spoils." It is notorious that the Common Council, composed of Boards of Aldermen and Councilmen, is largely made up of "bummers," ignorant saloon keepers, etc. As a consequence, no measure, however important it may be to the interests of the city, can be gotten through these bodies without bribery. Worthy, as well as unworthy objects, must be abundantly "greased" in order to be passed by these delectable city legislators.

By the law of the State, this body had imposed upon it the duty of creating a Board of Health, which was empowered with all necessary authority to look after the health of the city. Among its very many duties, it appointed a Health Officer, ward physicians, market masters, meat inspector, milk inspector, sanitary policemen, etc. In all, it made over 200 appointments, besides having very extensive legislative powers. For so high a position as members of this body, every one would have supposed that the best citizens would have been selected by the Common Council. On the contrary, bummers and low ward politicians were chosen. Instead of looking after the health of the city, this corrupt body turned their attention to making money. No appointment was made, not even to the meanest position, unless the party seeking the appointment paid for it. The corruption was so rank that citizens could not tolerate it, and petitioned the legislature to abolish the vile thing.

At the last meeting of the legislature the Board was abolished, and the Superior Court of the city was authorized to appoint a Health Officer, with necessary powers to see to the health of the city. The judges of this court, on holding a joint meeting this spring, declined to exercise the authority vested in them to appoint a Health Officer.

Under the circumstances, as the city, by the action of the Superior Court, was left without a Board of Health or Health Officer, and there seemed to be no body or organization to discharge the many important duties which had formerly been discharged by a Board of Health, the Common Council held a meeting during the last few days of the time we are writing, and proceeded to create a Board of Health. This, we understand, is a power it has assumed as the legislative body of the city, and has no authority to do by any act of the State legislature. But whether assuming illegal powers or not, every one would have supposed that it would have learned wisdom from the past, and, in creating a new Board, it would have made a show of endeavoring to make a respectable one. Its old Board, which it had appointed not very long ago, had been abolished, in consequence of being so rotten as to be offensive to every one; and it was natural to presume, in establishing another one, it would endeavor to make one that the legislature would not feel called upon to abolish so soon as it would come together. But what is the character of the Board just now chosen? Are the members of it respectable, intelligent citizens, in even the common acceptation of the term intelligent, without canvassing any special qualifications as to knowledge of hygiene, etc.? Of the whole nine individuals composing the Board, *every one of them is a saloon keeper—beer jerker*—except a single one, who is a medical specialist. It has been truly said, that out of a corrupt fountain only corruption can flow. Here our great city has cholera and yellow fever threatening it, and a parcel of saloon keepers, some of whom probably can not write their names, are chosen to look after the most vital interests of the city.

But if the good citizens of Cincinnati will stay at home, and permit bummers and ward politicians to be made the legislators of the city, they can expect no other results.

The Chamber of Commerce have appointed a committee to advise some action to be taken in reference to this appointment of saloon keepers to supervise the Health Department of Cincinnati. We presume the courts will be applied to for relief, on the ground that the Common Council had no power to appoint a Board of Health. We will wait with considerable interest the issue of the matter.

Cincinnati Exposition.—We have called attention before to the Exposition to be held in Cincinnati, but as the time is drawing near when it opens, we have thought we would remind our readers of the coming event.

The Exposition opens this year September 5 and will close October 6. Most extensive preparations are being made for it; and no doubt there will be made the finest display ever made at any previous time. Geological specimens in great quantities from the Far West, and from other portions of the country, will be on exhibition. We have understood that the display of the curiosities of natural history and the natural sciences will be really magnificent.

As on former occasions, only to a greater extent, there will be a very large exhibition of machinery and scientific apparatus of every kind. Not only our own makers of medical and surgical instruments and appliances, opticians, and manufacturers of electrical instruments, but also those of the Eastern cities, will be largely represented.

There will be so very much to interest intelligent and scientific persons that there will certainly be a very large attendance. All the railroads have arranged to reduce fares to visitors.

"A PRIOR CLAIM FOR THE DISCOVERY OF THE BACILLUS OF TUBERCLE."—Dr. J. M. Blaisdell, of Bangor, Me., writes: "Under the above heading in the September 30th number of your Journal, you state: 'The only objection to Dr. Blaisdell's claim is that when his article was published he did not say how he discovered his bacilli, nor did he figure them or in any way prove that they were not ordinary bacteria.' Now, I would like to ask the question, if failing to name the bacteria 'bacilli,' or something else, or to give the process by which I discovered them, really invalidates the discovery?

"I distinctly stated in my article on the 'Cause of Consumption,' that 'we were enabled to demonstrate that the "little bodies" seen by Virchow in miliary tubercles, were in reality the minute germs of fungi, which having been inhaled into the tubes with atmospheric air, became imbedded in the mucous membrane, incubating and developing into living parasites.'

"My article was hastily written for a popular journal, and consequently clothed in language that the public could understand. Had it been written for scientific eyes only, I should have used 'bacteria' and other terms, known only to the learned, instead of 'vegetable parasites.' But as the whole family of bacteria and bacilli are included in the general term of parasites—and were first discovered in pulmonary tubercle by myself, and announced (in my opinion) as the cause of consumption, I see not why, in all justice, I should not be accorded the priority in the discovery."—*Medical Record.*

An Inquiry into the Causes of the Increase of Cancer.—By Hugh P. Dunn, F. R. C. S. At the end of a long and elaborate thesis on this question, Mr. Dunn concludes—1. That, in the face of incontrovertible facts, cancer is increasing in England. 2. That this increase is due (*a*) to the success attending the legislative measures and other means for the preservation of the infant population, by which a large proportion of persons reach adult age, and the general healthiness of the community is increased; (*b*) to the greater prominence which, in the present day, prevails of the most predisposing causes of the disease—such as the fecundity of women, the prevalence of high nervous tension, the existence of possibly greater general luxury in the mode of living. 3. That the immunity apparently demonstrated by the records as present in certain counties of England and Wales is presumably, as we have attempted to show, not due to any real declination of the disease, but rather to such causes as can be explained by special local predisposition to other diseases, to which a large proportion of the adult population succumb. 4. That, in consequence of this, if each district of England and Wales were equally healthy, each would probably exhibit a high cancer-mortality. 5. That the geographical area of which England and Wales is composed is insufficient to account directly for interruption in the distribution of cancer as met with in this island.—*British Medical Journal.*

The Bi-Chromate Battery.—M. Trouve is stated to have considerably improved the bi-chromate battery in the matter of permanency, by super-saturating the liquid. He takes 150 grammes of bi-chromate of potash powder to a litre of water, and after shaking, adds, drop by drop, 450 grammes of sulphuric acid. The liquid warms and the salt dissolves, while no crystals are formed on cooling, nor are chrome alum crystals deposited in the cell. The elements are arranged with two carbons to each zinc, the latter being so placed that it can be withdrawn from the solution. With twelve elements and the solution above described, it is stated that ten incandescent lamps can be kept at work for five hours, each lamp going ten candles. The E. M. F. of the cell is stated to be 2 volts with fresh solution.—*Reporter.*

Suing for a Diploma.—A case so unique as to be unparalleled, we believe, has lately been brought before the Superior

Court of this city. A young man, a member of the class of 1883, at the College of Physicians and Surgeons of Baltimore, who was among the rejected applicants for the diploma of that medical school at the end of the last session, petitioned the court to issue a writ of *mandamus* upon the Faculty that they shall issue to him a diploma, and claimed that its non-issuance had damaged his character to the extent of $2,000. Through counsel, the Faculty filed a demurrer, which set forth that the Faculty had the right to deny its diploma upon *any* grounds whenever it saw fit. That it was, so far as that went, the supreme tribunal, and that no court of *justice* could control such action. After argument before the court, the sitting judge decided in favor of the demurrer. An appeal was taken.

Rush Medical College is about to build a hospital. The plans are prepared, and the work will be pushed to completion by midwinter. The structure will be located on the north of the College building, and adjoining it, and will have an easy capacity of about fifty beds.

The building has been planned with a view to future enlargement by extensive additions. For this purpose the College has secured a lot of considerable size, reaching north of the present hospital site and fronting on Congress Street. It is the design that the hospital shall eventually front on Congress Street. While the hospital is designed to be, to a certain extent, a clinical arm of the College, it is expected that it will be under the direct management of a religious order—two applications having, it is said, been already made for the care of it by such organizations. It will be, to a large extent, eventually a free hospital.

Albuminuria.—Our readers should not neglect to read the article on this subject in this number of the Medical News, translated by Dr. Illowy. Dr. Illowy has been translating from French journals for us for some time, and an educated gentleman as he is, possessing acknowledged abilities of the highest order, he is highly competent for the task. Besides, no one knows better than he the sort of articles most acceptable to physicians of this country.

THE

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Original Contributions.

Imagination Versus Disease.

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THAT the imagination plays a very important role in the ordinary transactions of life is patent to every one who has given this subject any attention. That it is an important factor in the various ailments that sweep over the human body is evident. That it is strong enough to produce a diseased condition has been demonstrated time and again. We know of different diseased conditions that have been developed through its influence.

The question was asked, "Is the imagination strong enough to destroy life?" and the experiment with the convict answered it in the affirmative.

The imagination acts as a mirror and reflects our thoughts. At the same time that they are reflected, they are made to assume new forms or shapes. In one sense we might say that the thoughts act as the material, and the imagination using them has the power to create others. The new creation may resemble in some respects the original, or it may be entirely different. This force is much more active in some than it is in others, or not so perfectly under the control of the will. An object is seen in a dim light, the outline being somewhat irregular, the imagination can picture from this an animal or a wild beast; and the longer it is contemplated in this manner the more life-like it becomes.

When the imagination is exerted it has a peculiar influence over the nervous system. It is well known that the nervous system plays an important role in the various diseases that affect the human organization. It is equally well known that if we irritate the origin of certain nerves, there will be an engorgement of the vessels supplied by their peripheral distribution. If we irritate a ganglion, then we will have a reflex irritation of the part supplied by the filaments passing out from this body.

Thus it will be seen that an irritant may cause an engorgement, or congestion of a certain part or parts. It matters not in what manner or form the irritant is applied, or from what source it is derived, its action upon the nervous system is the same.

The imagination is one of the peculiar properties of the mind that has a dual role. It may be exercised in a manner that will be both pleasing and profitable, and again it can be brought into use and we have sickness and even death as the result.

G. B. Griffith relates the following: "A Luchese peasant, shooting sparrows, saw his dog attacked by a strange and very ferocious mastiff. He tried to separate the animals and received a bite from his own dog, which instantly ran off through the fields. The wound was healed in a few days, but the dog was not to be found, and the peasant after some time began to feel symptoms of nervous agitation. He conceived that the dog, from disappearing, was mad; and within a day or two after this idea had struck him he began to feel symptoms of hydrophobia. Hourly they became more violent, and he raved and had all the evidence of a violent distemper. As he was lying with his door open to let in the last air that he was about to breathe he heard his dog bark. The animal ran up to his bedside, and licked his hand and frolicked about the room. It was evident that the dog was in perfect health. The peasant's mind was relieved in an instant. He got up with renewed strength, dressed himself and plunged his head in a basin of water, and thus refreshed walked into the room to the astonishment of his family."

Thomas Fuller shows by the following that imagination will put life into young limbs. A gentleman, having led a company of children beyond their usual journey, they began to cry and were weary and wanted to be carried. On account of their number this was impossible, but he told them that he would provide them with horses. He then cut little wands out of the hedge, and called them little nags, and a large one for himself. Then they mounted, and those who could scarcely stand before now bounded homeward full of mirth and laughter.

There is a something about the imagination that is subtle and hard to comprehend. Why it should be made to exercise these two functions, that are diametrically opposed to each other, is something that is not easy of explanation. That it does do so, no one will deny.

Then we will have to look upon it in the sense in which it is capable of producing disease.

A man in passing along the street may see another person, who has a tumor upon his lip. He asks him the nature of it, and is told that it is a cancer, caused by irritation from the stem of his pipe. The man recognizes the nature of the disease, and pictures in his mind the suffering that will follow, at the same time remembering that he is also in the habit of smoking a pipe, and is liable to produce a similar tumor upon his own lip. With this warning he feels of his own lip, and to his great surprise he finds that there is an induration at the point where it comes in contact with the pipe-stem. He is alarmed, and even frightened, being satisfied in his own mind that he is also the victim of a cancer. He does not stop to reason, else he would know that the constant pressure and rubbing of the lip against the stem would produce a calloused condition, but he jumps at the conclusion that there can be but one result. Then, by constantly pinching and handling the part, together with the mental worry and anxiety, we find that the tumor enlarges and becomes painful. All of this may be due to the constant irritation and examinations to which the part is subjected. But, after awhile it is found, upon a careful examination by a competent physician, that the enlargement is of a carcinomatous character.

Here, then, we have presented a disease that was developed or produced by the imagination. It is true that the irritation caused by the constant handling, and the mental anxiety, played an important role in the development of the disease. We are willing to admit this, yet that does not disprove the fact that the cancer was first formed by the imagination, the others being important auxiliaries.

In this case we have the imagination exercised in that peculiar manner in which it is capable of producing unpleasant results. Or we might proceed still farther, and say that if this peculiar property of the human mind be exercised in this manner, it has the power of acting as an irritant; not only acting as an irritant, but acting in conjunction with other causes and forces, to produce or develop a peculiar form or type of disease. In the case just cited we have a cancer, but in such it is not absolutely necessary that the locality should be the same; but in the development of such diseases as are known by an enlargement or an ulcer, the disease is more apt to be developed if the exciting cause is located at or near the same place. When we say the exciting cause, we simply mean an accidental wound, or abrasion, or hypertrophy. This then acts as the exciting cause by directing attention, not only to the supposed nature of the disease, but to the locality as well.

The Rev. E. T. Taylor is said to have related the following incident. It happened years ago, in the days of the old-fashioned meeting-house, with their pews like pens, and their pulpits perched up at an elevation which placed them without the pale of human sympathy, and when a fire for warming the church was a thing unheard of. Some of the enterprising young men determined to have the house warmed by stoves. The project encountered the most violent opposition from the old people. They declared that it should not be; that stoves were not a gospel ordinance; that the congregation would suffocate. The young men prevailed, and on the following Sabbath the congregation beheld in the church two formidable black stoves, with pipes traversing the entire length of the house. The old men and women looked on with horror and held their breath for the result. The exercises of the morning proceeded. Soon a lady fainted away, and another gasped for breath. They were carried out of the church. At last a stout, burly man swooned and fell. The frightened minister at once dismissed the congregation, and there was a general rush of the indignant people toward the stoves. The windows were thrown open, and they were about to throw the young men through them, when lo! and behold! the stoves were cold, and not a particle of fire had been kindled in either of them. The masons did not have quite enough of time to finish fixing them up, and no fire had been made. The triumph of the young men was complete.

An old lady imagined that she was an invalid, and wanted a fire in the stove in warm weather. When she ordered a fire made her mischievous grandson would put a lantern in the stove. In a short time the old lady would call for Charlie, and tell him to shut off the draft; then give him a lecture for making such a large fire.

There can be no doubt but that mental attention does have an effect upon the organs of the body, and it is rare to see a person who can not develop an imaginary feeling in a part to which the attention is directed. No one knows this any better than the professor on "Theory and Practice of Medicine" in a medical college. When lecturing upon pharyngitis, some student will imagine that he is troubled with this disease, that he has some of the symptoms, that he has pain in the throat, irritation, and his mouth is dry. His attention being directed to the parts, he develops those conditions by constant attempts to swallow saliva. Or, it may be that the subject is upon a diseased condition of the bronchial tubes and air cells. The student has an inordinate desire to cough, and in so doing brings up a little mucus. Looking at this through the magnifying power of his imagination, he can see the microbe of consumption. If the speaker refers to the heart and its diseases, the next day a student presents himself for an examination, as he knows that he is the victim of some obscure form of valvular trouble, with violent palpitation. The cause was the mental attention produced by the remarks of the lecturer, and at night, owing to some unusual position he felt the heart beating. The imagination immediately developed alarming symptoms.

A lady has a friend who has had a cancer upon the breast, and has had it operated upon. The disease has recurred, and a second operation has been performed. The suffering during this time has been intense and almost unbearable. This is known by the lady, and has been the cause of considerable comment by herself and friends. Accidentally she receives a slight injury upon her breast, say, from her corset. This will cause a little induration and tenderness for the time being at least. But as soon as it is known that there is a small nodule, or enlargement, not only the lady herself, but her friends, know that it is a cancer, for it looks exactly like the one about which we have just been speaking, at its commencement.

The result will be that from the irritation, not only from the hand, but from the imagination as well, the latter contributing the larger part, we will find in the end that a cancer will be the result.

Other diseases may be produced in a similar manner. It is a common remark during an epidemic of small-pox, that those who are the most afraid of it, those who dread it and are constantly talking about it, are the ones who generally succeed in getting it.

At certain times and conditions of the system, we can develop actual pain in a part by thinking constantly about it. If this were not true, the hypochondriac would no longer be a martyr to his own erroneous impressions. Upon this principle depends the fact, that if you inform a valetudinary dyspeptic that at a certain time, and in a certain organ, he will have aches or pains, his attention being thus drawn to the date, the imagination will develop the pain at the allotted. time.

This faculty of the mind came very near causing the death of Elijah Barnes. While at work in the field he encountered and killed a very large rattlesnake. Shortly afterwards he picked up his waistcoat and put it on. To his horror and surprise, he found that he was so much swollen that he could scarcely put it on, much less button it. He supposed that he had been secretly bitten. He hurried home, and the three physicians who had been summoned, seemed to be unequal to the task imposed upon them, of keeping life in the body, when the son came in with his father's big waistcoat on, and the swelling was then easily accounted for by the old man, who saw the mistake, the coats both being the same color, the difference being in the size.

An old lady, of a nervous hysterical temperament, had imagined herself sick for some time. Directly in front of her bed was a large gilt mirror, ornamented with spikes, pinnacles, stars, diamonds, etc. When the physician called she complained of severe internal distress, but she added with a certain amount of would-be resignation, "No wonder, for I have swallowed *that there* looking glass."

No doubt but the majority of the readers of the NEWS have heard of the convict who was condemned to die for murder, and who was blindfolded and taken from his cell by physicians. They told him that his friends did not want him hung, and they were going to bleed him to death. That it was entirely painless, and would save him the disgrace of being hung. He acquiesced. Arrangements being made, they picked the arm with a pin, and started a stream of water in a basin at the same time. After awhile one of the physicians said, "He is getting pale." Another asked, "How many pounds of blood in the body?" and was answered, "Twenty-five." He then said, "The man is half dead, for he has lost twelve pounds of blood." They lowered the tone of their voices, making similar comments. After awhile they withdrew entirely. The stillness was only broken by the flowing of the water into the basin. The culprit supposed that his life was gradually going out, and that the stillness was due to the approach of death. In a short time he was dead, and not a drop of blood had been removed.

Some years ago there was a peculiar experiment tried in Russia, with some murderers. It was during cholera times, and they were placed without knowing it in four beds where four persons had died of malignant cholera. They did not take the disease. They were then informed that they were to sleep in beds where some persons had died of this disease, in a malignant form. The beds in which they were placed were new and had never been used. Notwithstanding this, three of them died of cholera in less than four hours.

Then the question naturally presents itself, in what manner does the imagination act in order to develop or produce a disease? In the first place we say that in all these cases the imagination plays the part of an irritant to the mind, and is directed to the organ or conditions presented by the disease, and that together with the auxiliaries which we have already mentioned, we simply have the disease reproduced. The imagination acts as the mirror, and the thoughts reflected being derived from the disease, we have developed from this a reproduction.

Dr. Holland pointed out the effects of mental attention on the bodily organs, showing that there are few persons who do not experience irritation, or some imaginary feeling in parts to which their attention is much directed.

A vivid imagination by no means indicates a morbid mind; on the contrary, it shows an activity of the molecules of the brain in receiving and imparting impressions. This depends largely upon the intellectual capacity of the receiver, and the facility of giving expression to such impressions, requires not only activity but strength. Any manifestation conveying thought to the human mind, reflects itself upon the imagination through some one of the senses, creating a picture as vivid as the artist could in transferring the scene from his brain to the canvas. Imagination conceives, develops and gives birth to the highest expression of the soul, as well as becomes a creator of and author, not only of principles, but also establishes facts, verifies theories and controls the vast machinery of human life. It has no boundary nor can it be confined within the limit of nature. To attempt to limit the imagination, one would meet as formidable obstacles as in an effort to follow out its dictation in detail. It is an important factor in the removal of national as well as individual ills, in the destruction of a country's wrongs, and the union of the mistakes of the children of men. It creates evil as well as good; originates as well as removes the diseases of the human body, and drives before it the multitudes, as the whirlwind carries before its revolving force the fallen garments of the sturdy oak that stands as a monitor upon the highway.

Nations rise and fall before the effects of the imagination; men perform deeds of valor in obedience to its mandates, and its influence becomes a component part of every condition of life. If it becomes so powerful an element in the economy of life, is it not rational to believe that it holds sway over the human system to such an extent as to at least produce a direct effect upon the diseases to which flesh is heir, and either assist in the removal of it or increase the evil already existing?

It becomes necessary that the physician should first appeal to the imagination of his patients, and through it to the disease to be dispersed, that he may inspire him with confidence in the remedies applied, that the organs of the body may more readily perform their functions, and thus overcome and throw off the abnormal condition. Nervous temperaments can sometimes be easily controlled through the influences of imaginary benefits. Nearly all physicians know that a certain class of their patients is controlled chiefly by and through the imagination alone.

What would terminate in actual disease and perhaps death, is often overcome by remedies containing no medicinal effects whatever, by simply arousing a belief in their efficacy. All classes of diseases may be more or less affected by addressing them through the imagination.

Imagination is the foundation of hope. It casts the picture of its own creation upon the mirror of human thought until it quickens the intellect of man and bids him rise; shake off the lethargic sleep that fetters the soul until it becomes the *compagnon de voyage* to each traveler up the broad highway of life. Imagination is a force, which, when fully awakened, becomes the motor to the mind, and calls into service the highest and best qualities or attributes of the soul. It is an affirmation governed by the environments of each individual, and can become a power for good.

A short time ago a gentleman came into the office and said, "Doctor, I can not take that medicine. I never could take belladonna. It makes my mouth dry and produces a burning sensation in the throat. I knew that there was belladonna in it by the smell, and after I had taken two doses my mouth got so dry that I could not talk, and I had to stop taking it. I have only taken two doses of the medicine and of course am no better, and you will have to give me something else." I told him that he was very much mistaken about there being any belladonna in his medicine. That there was nothing in the prescription that would cause any dryness or burning of the mucous membrane of the mouth or throat, and to continue taking the medicine according to directions. The next time I saw him I asked if he had been troubled with the dryness and burning in mouth and fauces. He replied that he had not and had taken all the medicine.

Here we have the odor of one drug mistaken for that of another. He had taken belladonna and it produced the unpleasant symptoms which he mentioned, and he had definitely settled in his mind that he could not take it. He also supposed that he was familiar enough with the odor of this agent to detect it. He smelled of the medicine and supposed that it contained belladonna. After he had settled this question satisfactorily to himself, then his imagination soon developed the symptoms. Again, when informed that it did not contain this agent, and that there was nothing in the medicine that would cause the symptoms that had annoyed him, and furthermore, that it could not produce them, then his judgment corrected the imagination which had been at fault, and the disagreeable symptoms were not reproduced when he recommenced taking the medicine.

Huc, the traveller, relates that when a Lama physician happens to be without a particular drug, he is by no means disconcerted. He writes the names of the remedies on pieces of paper, which he moistens with saliva, and then rolls them up into pills. The patient tosses them down in perfect reliance on their medicinal virtue.

To swallow the name of a remedy, and to swallow the remedy itself, say the tartars, is one and the same thing.

Satirists, as a rule, would generally assent to this proposition. Yet this very class, after contemptuously ridiculing the ignorance and humbug of medicine and medical men, no sooner fall sick than their imagination turns a somersault, and they resign themselves with abject submission to the prescription of their butts.

Proceedings of the Brooklyn Pathological Society.

THE PRESIDENT, DR. WM. WALLACE, IN THE CHAIR.

CARCINOMA OF THE LARYNX.

Dr. Geo. R. Fowler presented a specimen of carcinoma of the larynx, pharynx and cervical glands, with the following history:

The patient, C. L. Bremer, age 42, born in Germany, came under my observation on May 13th last, with the following history: For several months past he has been suffering from shooting pains, referable to the left ear and lateral cervical region, and progressive hoarseness. His general health has been good up to within a few weeks past, with the exception of attacks of sub-acute gastritis of varying intensity and duration, these being the result of over-indulgence in alcoholic beverages. Latterly, dysphagia has been added to the symptoms. At this time he was under the care of Prof. Louis Elsberg, of New York.

On the day preceding the date of my first visit, he had caused to be extracted a number of decayed teeth; prior to this he had not suffered from marked dyspnœa, but in a few hours following the dental operation, marked symptoms of obstructed breathing developed. Upon examining the mouth and fauces a swollen and infiltrated condition of the mucous membrane was observed. Laryngoscopic examination revealed an œdematous condition of the supraglottic tissues and surrounding parts. A small growth was discovered springing from the laryngeal surface of the epiglottis, having a broad base, elevated about 5 ctm. above the surface and measuring about 2 ctm. in its longest diameter. The ventricles of the larynx, together with the ary-epiglottidean folds, were also œdematous.

Inhalations of steam and the application of a hot sponge to the pre-tracheal region relieved somewhat the urgent symptoms, and Dr. Elsberg was sent for. It being Sunday, and there being some doubt as to the messenger's ability to find Dr. Elsberg, I also requested my friend, Dr. French, to see the case. In the afternoon Dr. Elsberg arrived, and, at his request, Dr. French was invited to be present. The examination at this time confirmed my statement as to the condition of the parts as above detailed; in case of a return of the urgent symptoms, tracheotomy was advised. In less than four hours from this time another alarming attack occurred, and the patient came near perishing from suffocation before my arrival. I administered chloroform, and, summoning assistance, performed tracheotomy at once. Under the intelligent care of a medical student, the patient made a satisfactory recovery from the operation, but the disease made rapid progress, involving the glands of the neck and lateral pharyngeal wall. A portion of the growth involved the skin, ulcerated, and a vessel of considerable size was opened by the ulcerative process; from this source occasional hemorrhages occurred, and the patient perished from exhaustion on August 21st.

The post-mortem examination showed an involvement of the epiglottis, left lateral pharyngeal wall, cervical glands, and overlying cellular tissue and skin in the carcinomatous disease, which had spread rapidly in parts not amenable to any operative procedure. Excision of the larynx, unless performed very early in the case, would have been followed by no good results whatever.

Among the interesting points in the case may be noted the rapid supervention of œdema glottidis, accompanied with some spasm, following the traumatism in the cavity of the mouth; and the rapid progress made by the disease, following the operation of tracheotomy.

MILIARY TUBERCULOSIS; SUPPURATIVE PACHYMENINGITIS.

Dr. Paul H. Kretzschmar presented specimens, with the history as follows: R. H., age 50; German; Apothecary; I have known the patient for about ten years; he has always been regarded as a "peculiar" man. Saw him first in his final illness on November 12th; he complained at that time of a troublesome cough, severe headache over the right temporal bone, and restlessness. On examination it was found that the apices of both lungs were diseased. Temperature variable, reaching occasionally 104° during the forenoon, with a normal temperature towards evening. Night sweats, expectoration of tough, tenacious, whitish sputa, loss of appetite and general debility; bowels free. The patient had for years had more than one passage, when he had an alvine evacuation; and he told me that, as a rule, he had three movements every morning. Diagnosis: Tuberculosis suspected; probably malarial poison.

Medication brought about no change; the cough became more troublesome, the headache more severe, the temperature rose higher; the patient complained after November 20th of a severe pain in the left side at and above the location of the spleen. Dr. B. F. Westbrook saw the case in consultation three times, and confirmed diagnosis of miliary tuberculosis; all the pulmonary signs and symptoms increasing in severity. During the last days of November a collection of fluid could be detected on the left side of the skull, at about the parietal eminence, which was tender and painful. A free incision was made soon afterwards, and pus discharged freely. From December 6th until December 23d the patient was delirious or semi-comatose. New collections of pus formed rapidly, one after the other, and before the 24th day of December four abcesses had been opened all over the skull. Dr. Abraham Jacobi, of New York, saw the patient with me on December 19th; he confirmed our diagnosis of tuberculosis, but he explained the continued height of the temperature by suggesting the existence of pyæmia. The highest temperature was reached on the forenoon of December 21st, when the thermometer indicated 105¾° F. in the axilla. Perhaps the most peculiar feature of this case was the influence which large doses of quinine had both on the temperature and the condition of the patient's mind. From December 18th until December 26th, 40 grains of quinine were given daily, and from the beginning the cerebral symptoms diminished in severity, until at the fifth day the patient regained his mental faculties to a considerable degree; the temperature came down to 99° to 100½°, and stayed there as long as the large doses of quinine were administered. In conclusion, it may be stated that the patient had been suffering from otitis media, and had been treated for it by Dr. Simrock, of New York, and Dr. A. Mathewson, of this city.

Was the otitis the primary cause of the pyæmia? Did the pyæmia *follow* the tuberculosis?

Autopsy.—Made 26 hours after death, Dec. 31, 1882. Drs. B. F. Westbrook, Leuf and P. H. Kretzschmar. Rigor mortis not well marked. Body emaciated.

Chest. —Nothing abnormal found in mediastinum.

Heart.—1½ oz. fluid in pericardium. Right auricle distended and filled with a gelatinous and partly white clot; the walls are rather thick. Pulmonary artery contains a white, bifurcated clot. No valvular lesions.

Lungs.—*Left lung* adherent; *right lung* adherent but not as strongly as the left. Right pleura contains bony or calcareous deposits on the outside of the lower lobe. Lower lobe almost solid; upper lobe full of nodules, on cutting through which they appear to be small cavities filled with pus. Many cheesy deposits are found scattered through the entire part of right lung, indicating peribronchitis and bronchiectases. Miliary tubercles found in upper lobe, but more extensively in the lower one. *Left lung*, miliary tubercles on the visceral pleura of the upper lobe, and also a few on the upper part of the lower lobe anteriorly. The apex is shrunken, hard and nodular, and on incision shows the changes caused by peribronchitis. Bronchiectases are found. A small cavity in the extreme apex. The lung, throughout, presents a similar appearance to the right one, although the cheesy deposits are not as numerous. The lower lobe presents more acute changes. Its upper portion is thickly studded, granular on section, œdematous, and in a state of spleenization. On the left side, between the parietal pleura and the ribs, a large abscess is found, containing about three (3) ounces of pus, extending from the 4th to the 10th rib and from the costal cartilages to the vertebral column. The bones are not denuded.

The *mesenteric glands* are swollen.

Cœcum, *ileum* and *rectum* are bound down on the *right* side of pelvis; the rectum lying on the right side of the sacrum. The appendix vermiformis appears abnormal and is removed for further examination. The cæcum and rectum had adhered, and an opening between the two occurred, through which the vermiform appendix was dislocated, so as to hang into the rectum in its upper third. On first opening the rectum it appeared to be a polypus, but it was traced directly up into the cæcum. It was suggested by some gentleman, that it might have been inverted, but whether this was the case or not, I am unable to say.

Liver enlarged. Signs of old interstitial hepatitis and congestion.

Left Kidney.—Capsule adherent. Kidney granular and hard.

Right kidney.—Small and hard.

Skull.—Six (6) abscesses are found on the surface of the calvaria, four of which had been incised. They were situated as follows:

No. I., on the coronal suture, the center one inch to the left of the median line, nearly round, and about one and a quarter inch in diameter..

No. II., on the coronal suture, the center four inches to the left of the median line, three-quarters of an inch below the temporal ridge, oval in shape, with an antero posterior diameter of one and seven-eight inches (1 7/8 in.), and a lateral diameter of one and a half inches (1 1/2 in.).

No. III., has its center on the left parietal bone, close to the upper border; is nearly round, and has a transverse diameter of one inch. Between No. I. and No. III. there is a slight communication.

No. IV., not incised ante-mortem; it extends from the posterior border of No. III. downward and backward about two inches and a half, into the occipital region.

No. V., on the apex of the lambdoidal suture; almost circular, its transverse diameter about one inch and a quarter (1 1/4 in.).

No. VI., not incised ante-mortem; it is situated under the right temporal fascia and muscle, on the squamous portion of the temporal bone, extending one quarter of an inch (1/4 in.) above the squam. suture; the bone is denuded, but not rough; the line of the suture is distinct and discolored, (bluish and reddish), and slightly open, so that the blade of the knife can be easily inserted between the bones.

These abscesses involve the pericranial tissues, leaving the bone bare; no caries can be detected. The edges of abscesses Nos. 2, 3, 4, and 5, are elevated and red, those of No. 1 are clean cut, but not so red. Nos. 2 and 3 involve the temporal muscle and fascia on the left side.

After removal of the calvaria, an abscess is found on the *dura mater*, over the superior longitud. sinus, measuring about 1 3/4 inch in length, and 1 1/2 inch in width. The *dura* is ulcerated, but not perforated. This collection of pus on the surface of the *dura mater* is exactly under the middle of the coronal suture. The longitudinal sinus has communicating with it, although not freely so, an abscess cavity, containing about ten minims of pus; this cavity is situated somewhat posteriorly to the place where the pus is found on the surface. On examination of the calvaria it is found that on its inner surface, just in front of the coronal suture, there are some granulations, and beneath abscess No. 1 there is a small opening into the bone, the aperature of a small vessel. On the left side of the calvaria there are eight points of suppuration. On the right side, a greenish discoloration, the result of osteo-myelitis, is found on the squamous portion of the temporal bone, and on the mastoid process. At the outer end of the lesser wing of the sphenoid bone, between the bone and the *dura*, is a small collection of pus, about the size of half a pea. The tympanum contains pus, and some infiltration is found anteriorly around the carotid artery—the pus can not be traced to the surface of the bone. Pus is found in the eustachian tube; the bone around it is somewhat softened. Beneath the seat of abscess No. 5. between the *dura* and the calvaria, there is a thin layer of pus; the bone is somewhat denuded, and a number of small openings are seen running into the bone. The pia and arachnoid are slightly opaque. The brain is œdematous and the right side is slightly congested.

AMYLOID LIVER, ABDOMINAL DROPSY, PULMONARY COLLAPSE.

Dr. Leuf exhibited specimens from the following case: Male; 11 years of age; born in the city; poor and hygienic surroundings bad. Was thrown into the gutter from a wagon when a little less than one year old. Soon after this he became humpbacked and his abdomen enlarged. This enlargement persisted during life, and became greater some time before death. Was always pale, thin and delicate, but never failed to have a good appetite; was averse to fluids for many years, exactly how long could not be determined. Was as well as ever on the morning of his death and ate a hearty breakfast, shortly after which he became weak and anxious, and told his father not to leave him as he would certainly die in a very short time. The face and hands then became cyanotic and he expired in ten or fifteen minutes, with symptoms of asphyxia. So far as could be ascertained, he had never had any serious illness.

Autopsy.—Body emaciated; light complexion; abdomen prominent, and about three times as large, proportionately, as that of a woman at full term of utero-gestation; penis and scrotum were markedly œdematous; no œdema elsewhere, nor was there any history of there having been. The abdominal cavity contained a very large amount of fluid; that which appeared at first was the most supernatant portion, and it was almost clear and contained a few flakes; while that which was seen later, and which was found in the most dependent parts of the abdominal cavity, had a dirty red color and contained a large quantity of red and ragged lymph flakes. All the other serous cavities contained a large amount of fluid, but this was not red. The liver was enormously enlarged, extending almost to the anterior superior iliac spine, and across the abdomen. It was at least half again as large as a full-sized adult liver. It was markedly amyloid. The portal system of veins was filled with blood. The stomach was pushed down, so that the pylorus was opposite and to the left of the fourth lumbar vertebra. It was empty, contracted and tubular, and lying to the left of the spinal column. The rest of the alimentary tract was empty and contracted. Permission to examine the kidneys, pancreas and spleen, could not be obtained. Both pleural cavities were remarkably deep, the vertical diameter greatly diminished, and the capacity far below the normal. Both lungs were bound down to the spinal column. Almost all of the right lung, and about one-half of the left, was completely collapsed. The heart was flaccid, and all its cavities contained fluid blood, except the right auricle, which was enormously distended with a black coagulum. The heart had an extremely round apex, fully two-thirds of the apex being formed by the right ventricle. The *margo obtusus* of the left ventricle, and the *margo acutus* of the right ventricle, together, formed a well marked semicircle, instead of an acute angle, as they usually do. There was no valvular disease, and the organ seemed not to be fatty. The cause of death was put down as asphyxia, due to collapse of the lungs. The latter was supposed to be due to the pressure of the liver and abdominal fluid. The ascites, it is believed, was the result of a damming back of the portal blood on account of the enlargement of the liver, causing an obstruction to the hepatic circulation. The amyloid degeneration of the liver is more difficult to explain, but may have resulted from the spinal caries. The extent of the latter, however, could not be investigated, in consequence of the opposition of the father.

PULMONARY TUBERCULOSIS, WITH EXTENSIVE EXCAVATION, IN AN INFANT OF SIX MONTHS.

Dr. A. H. P. Leuf presented the case.

Male; 6 months old; born in the city; poor; hygiene fair. The child had been sickly since its birth. There had been no medical attendance. No definite ante-mortem history could be obtained.

Autopsy.—Body short and extremely emaciated for a child of 6 months. The skin hung about the body in loose folds. The eyes were sunken, and the lips were so thin that the projection of the gums could be seen outlined through them. The skull was well ossified, and had to be sawn and chiseled open like that of an adult. The *dura* was, of course normally, very adherent to the calvaria. The brain and spinal cord were markedly anæmic and œdematous. No tubercular deposits were seen in the brain or cord; but the examination was rather superficial on account of the extreme softness of these organs. They were placed in a ten per cent. solution of the bichromate of potassium for further examination. The right upper pulmonary lobe was almost solidified by what appeared to be tubercular deposits. There was a small, but comparatively large, cavity in the right upper lobe. It extended directly downwards from the apex to the base of the lobe, involving fully one-third of this part of the organ. It had a well marked wall. Both pulmonary pleuræ were studded throughout with numerous miliary tubercles of about the size of a pin's head and pearly in appearance. There were many more of these scattered throughout the interior of both lungs. The upper lobe was the only part of the right lung that was adherent. All of the left lung was free. The heart was flaccid, and all its cavities full of very dark, almost black, blood. The right side was more distended than the left. The liver was normal in appearance. The spleen was, like the lungs, in a state of miliary tuberculosis. The kidneys and pancreas appeared normal. The bladder was moderately distended. The intestinal canal was blanched, empty and contracted, only here and there did it contain a little gas. The alimentary tract was unusually long. The mesenteric glands were much enlarged and indurated.

Discussion.—Dr. Drury said that it was well to bear in mind that it would be exceedingly difficult, if not impossible, to diagnosticate a cavity in so small a child, and doubted whether it could have been recognized before death.

Dr. Leuf remarked that he believed the same, for he had on several occasions, and the last one not long ago, seen large cavities, almost big enough to hold his fist, which had not been recognized by some of the most expert diagnosticians in the city, although they had carefully and persistently searched for them. He thought the difficulty in diagnosticating these cavities before death was due to their structural and relational differences from those that could be. This he would attempt to explain at some future time.

Dr. Kretzschmar called the attention of the Society to a similar case that he had presented to them a short time since, in which there was miliary tuberculosis of the lungs and spleen, while the liver, kidneys and pancreas appeared exempt. There was, however, no cavity in the lungs, and the brain and cord had not been examined.

Dr. Leuf said he had looked in vain for some statistics to show the frequency of pulmonary cavities in early infancy, and would call on the Society for their experience. This call was not answered.

Selections.

Clinical Lecture on Some of the Causes of Sterility and Their Treatment.

BY T. GAILLARD THOMAS, M. D., NEW YORK.

GENTLEMEN:—Three cases of sterility having presented themselves by accident at the clinic to-day, I will avail myself of the opportunity to give you a practical illustration of some of the causes and of the treatment of this condition. If your experience, when you are in practice, is anything like what mine has been, however, you will undoubtedly find that in general the results of the treatment of sterility are very unsatisfactory. Perhaps, out of twenty cases, you may have one or two successes, and your professional neighbors may be led to form a high opinion of your skill, because you will be sure to publish the one or two successes, but will take good care not to say anything about the eighteen or nineteen failures. In a London review of one of the editions of my work on diseases of women, the opinion was expressed that it showed an extraordinary barrenness of results in the treatment of sterility, and that these were much better on the other side of the water. Yet if one were to examine into the methods resorted to there, it would be found that precisely the same means were employed which were recommended in my book.

There is only one way in which any success whatever can be achieved in the treatment of this troublesome affection, and that is to study each particular case on its own merits and thus avoid the grievous error of falling into any routine method.

In doing this, one will sometimes find that there is some constitutional ailment in the husband which prevents conception; in other cases, that although there is no constitutional trouble, the local results of a specific urethritis give rise to the difficulty, and in others, again, that the husband is impotent.

The first patient that I bring before you is Mrs. J., who is twenty-seven years of age and has been married eight years, but has never been pregnant, although she is anxious to have children. She says that she enjoys good health, with the exception of having more or less pain in her head and back and marked irregularity in her monthly sickness. Her menses come on only once in every three or four months, and the flow is even then very scanty, at the most lasting only twenty-four hours; while it is accompanied by very severe bearing-down pain. She also suffers considerably from leucorrhœa.

From the above history we can say at the outset that it looks as if there were something wrong about the woman herself, rather than her husband, which prevents her from bearing children. The results of a physical examination are as follows: The patient having been placed on the back and the finger passed up into the vagina, it was found that the cervix was in its normal position, but the moment it was touched it was ascertained that there was something peculiar about it. The os, instead of being of the natural size, was only that of a small pin-hole. The finger was now carried up higher and a mass was found behind the cervix pressing upon the rectum. By conjoined manipulation, it was ascertained that the body of the uterus was absent from its natural position, and the patient then being placed upon her side and a Sims speculum introduced, a very small probe, bent backward, was passed down into the uterine cavity. It was thus demonstrated beyond a question that the mass back of the cervix was the body of the uterus, which was in a state of marked retroflexion. We have found, therefore, an ample explanation of the sterility in this case. It is true that many women suffering from retroflexion do bear children (though they generally have one or two miscarriages first), but when this is the case, you will not find the os in the condition which we have noted here.

In answer to special inquiries, the patient informs me that she did not begin to menstruate until she was eighteen years of age, and that she had to have the mouth of the womb opened by a slight operation. In these cases of narrow cervix the blood gets dammed up, causing great pain, which is at length relieved by the expulsion of a small clot. After a time, as the result of this repeated damming up of blood in the uterine cavity, the organ becomes retroflexed. We then have an additional factor in the production of dysmenorrhæa, because the bending of the uterus gives rise to spasmodic spasm of the sphincter muscular fibers of the cervix, and spasmodic dysmenorrhœa is thus added to the obstruction. We have, therefore, three causes for the trouble in this case: First, a narrow cervix, preventing a free egress of menstrual blood and causing a "ballooning" of the uterus at every period; second, retroflexion, occasioning spasm of the cervical muscle; and, third, a constant engorgement of the uterus with blood, resulting in the production of uterine catarrh.

Before referring to the treatment appropriate here, I would warn you never to promise a cure in such a case as this. Simply tell your patient that you see a number of conditions which appear to prevent pregnancy, that you think you can remove them, and that when this has been done the chances are that her dysmenorrhœa will be relieved and that she will bear children. The treatment must consist in overcoming the chain of morbid conditions discovered, the narrow cervix, the bent uterus, the uterine spasm and the uterine catarrh. It would be better, however, not to commence their removal in the order in which they have occurred. Such a patient should enter the hospital, and, having been put to bed, should be treated first of all with the hot water douche and laxatives. Then three times a week the uterus should be restored to its normal position by means of the sound. It is probable that her next menstrual period would be less painful than heretofore, and at the end of it the cervix should be held with a tenaculum, and three incisions, each cutting the sphincter muscle to the depth of one eighth of an inch, should be made with the Sims' knife. This having been done thoroughly, a glass stem should be pushed up into the uterus and maintained in position by means of an Albert Smith pessary (provided with a little cup in which the lower extremity of stem can rest), which will also keep the uterus in position. After the operation, the patient should be placed in bed and given an opiate. She should remain in bed for ten or twelve days, and have a carbolized vaginal injection three times a day. The glass stem may be kept in the uterus until after the next menstrual period, if it is thought desirable; but it should at all events be taken out then. By this time it will probably be found that the uterine engorgement has disappeared and the leucorrhœa has diminished; while the unnatural narrowness of the cervix has been removed entirely. (The glass stem should be somewhat larger than the normal canal.)

The patient can then be allowed to go home, wearing the stem and Albert Smith pessary. Twice a week the stem should be removed, and a probe wrapped in cotton dipped in pure carbolic acid passed up to the fundus. This application, which covers the mucous membrane with a whitish coating, can be made in the office. It is accompanied with no danger whatever, and I regard the carbolic acid as of much more service than iodine, zinc or alum, when used in this way. In from six months to a year the glass stem might be left off, and there would then be a chance of impregnation. It would be only a chance, you must remember, but I know of no better plan of treatment than that of which I have now given you the outline. Our premises here, I think, are undoubtedly correct, as I have seen the same conditions in hundreds of cases. In this particular instance, however, I should not feel very hopeful of overcoming the sterility for the reason that the facts that the patient did not commence to menstruate until she was eighteen, and that the flow only comes on every three months, naturally makes me suspect that the ovaries may be at fault as well as the uterus.

Our next patient is Mrs. Elizabeth L., born in Germany, and nineteen years old. She has been married four years and has never had any children, but thinks she had one miscarriage. She complains of pain in the region of both ovaries, which begins four days before the menstrual flow, continues through it, and lasts for a day or two after it disappears. She also suffers from the pain in the top of the head, which has been called uterine headache, and says she has never felt well since she had the miscarriage, which occurred about a year after her marriage.

Each case of sterility must be studied by itself, and this is of an entirely different character from the last. When a vaginal examination was made here, the finger failed to reach the cervix in its normal positions, but it was afterwards found much higher up than it ought to have been, while a mass continuous with this was found pressing down upon the rectum. The introduction of the probe showed that this was the retroverted uterus, the axis of the organ being completely changed. From the os uteri could be seen, through the speculum, a plug of viscid mucus hanging, looking like white of egg, and so tenacious that it was difficult to cleanse the cervix. When the mucus was removed a condition was observed beneath resembling that of granular lids, and the surface bled freely when touched with the small, dry sponge used to cleanse it. Both ovaries were enlarged to twice the normal size.

Here is a young woman who was perfectly well up to the time of a miscarriage, occurring a year after her marriage. She very likely got up on the third or fourth day, and in all probability, unfortunately, with the consent of her physician, if she had one. The uterus being heavy fell over backwards, and the ligaments were pulled upon, the traction on the broad ligaments preventing the return of venous blood. The pathological chain in this case is, then, retroversion with engorgement of the uterus, endo-metritis, chronic inflammation of the Nabothian follicles and sympathetic engorgement of the ovaries. It is estimated by Tyler Smith that there are two thousand mucous follicles in the cervix, and it is a question whether chronic inflammation of these is ever cured.

The treatment that I would advise here would be to restore the uterus to its normal position and put in a retroversion pessary, after which the mucus should be carefully removed from the whole uterine tract two or three times a week, and the surface painted over with pure carbolic acid. Within the os internum this is undoubtedly the safest as well as the best application, and I know of no other chemical which, thus applied, is not liable to produce pelvic cellulitis or peritonitis occasionally. Judging from my past experience, however, I should pronounce this even a more doubtful case than the other, as the sterility depends upon a cause well-nigh incurable.

Our last patient to day is Mrs. Rose G., twenty-four years old, and a native of Austria. She has been married six years, but has never been pregnant, and it is on account of her sterility that she comes to consult us. She is regular in her monthly periods, but sometimes they are accompanied with much more pain than at others. The flow lasts from four to six days. When the finger was introduced into the vagina, the cervix was found to be long and conical and the os very small. There was no leucorrhœa or other abnormal condition. The probe was passed with great difficulty on account of the small size of the os, and I have no doubt that in this case the peculiar formation of the cervix is the cause of the sterility. It is a cause which has been recognized by every writer within the last few years, and I think that our patient can, probably, be entirely cured.

In aggravated cases of this kind, where the neck projects very markedly, and is decidedly conoidal, amputation of the cervix is required, but in the present instance I think the cervix hardly long enough for this, and would advise the operation by bilateral incisions for its enlargement. If this should be done it is highly probable that impregnation would result, but it is by no means a certainty. I have thus been able to present to you some cases illustrating a few of the numerous causes of sterility, and it gives me pleasure to conclude with one in which it is possible to make a little better prognosis than in the other two.

Treatment of Cancer of the Uterus.

We make the following extracts from a very interesting and readable clinical lecture on "Cancer of the Uterus," by Prof. W. Goodell, author of *Lessons in Gynecology*. The case under discussion was that of a woman aged 37, a multipara, who suffered from menorrhagia, bleeding after coition, and a foul-smelling discharge. As regards physical examination, he says:—"Passing my finger into the vagina, I come upon a sore which is characteristic. It is crater-like. There is a hard, irregular margin surrounding an excavation, which has on its bottom and sides friable granulations. This is typical of carcinoma.

"The examination that I made had caused a little bleeding. That is one reason why you should never use a speculum in these cases. The finger tells the whole story, and the speculum may cause a hemorrhage difficult to control.

"What about the prognosis? It is very unfavorable. Out of all the cases on which I have operated, and of which I know the after results, only three have I considered cured. Still, I can prolong life, and that is a great thing. In some of the cases on which I have operated, the disease has not returned in the cervix, but in some other part of the body. I have operated on women apparently in the last stages of the disease, so low that you would not give them two weeks' lease of life, and have seen them get out of bed and live for over two years. My experience is, that the older the woman the more likely is the operation to be followed by success. In younger women there is more blood in the part, there is a luxuriance of growth, and they are not so apt to be benefited by an operation."

In reference to treatment, Goodell says that Freund's operation is rarely permissible, and then only when the womb is freely movable. "The operation which I shall perform to-day will consist in scraping away the cancerous matter as far as possible, and trying to reach healthy structures. The removal of the friable granulations will arrest the bleeding, which may not return. In doing this, I shall use this serrated curette, and this fenestrated forceps. In buying a fenestrated forceps, you should get it with the obstetrical lock, so that you can fasten the blades securely together. I am removing a large quantity of this most offensive material, and my fingers are going to smell very badly. How shall I get rid of it? I shall first wash them well with soap and water, and then with turpentine, which is very useful under these circumstances. Then I shall again use soap and water, with another go with the turpentine. After this I shall probably immerse them in carbolized water. Permanganate of potassium is an excellent disinfectant, but it has the disadvantage of so staining the hands that one is not presentable for several days after its use.

"Now, suppose a woman comes to you and you diagnose cancer of the uterus, are you going to say, 'Madam, I am very sorry to tell you that you have a cancer?' No, don't you do that. I should not tell even if she asked me to tell her the truth; but in the majority of cases they do not want to know, and will say to you, 'Now, doctor, if you find a cancer, don't tell me.' No matter how good a woman is, or how fully prepared for the future she may be, the knowledge that she has a cancer is a terrible blow, and she at once gives up, begins to go down hill rapidly, and soon dies. I never, except in very rare instances, tell the patient that she has a cancer; but I always tell some member of the family, or a friend, exactly what is the matter. Suppose the patient asks straight up and down, 'Is it a cancer?' You do not want to tell a lie, and you do not want to say that it is a cancer. I get out of it in this way: I say, 'This is not that kind of a cancer which you understand. This is not a hard cancer like that which comes in the breast, and which is hopeless. You have a bad ulceration of the womb. It is not hopeless; there are cases which are cured.' In the case which I have mentioned, where the lady took thirty-five grains of morphia a day, the word 'cancer' never passed my lips, nor did it pass hers. None of the members of the family used that word, yet she knew as well as I did that it was a cancer. It was always spoken of as that 'bad ulceration.' About three years ago I learned a lesson on this point. I was asked by a physician to see a near relative of his. His suspicion was that it was a cancer. I said to him, 'Suppose that this is the case, shall I tell the lady?' He replied, 'Yes, she ought to know; tell her by all means.' After I had examined and found a carcinoma, I said, 'I am very sorry to say that this is malignant,' and then went on and told in so many words what the trouble was. She never rallied from that. She made up her mind that her days were numbered, and there was no use in doing anything, and in a short time she died. I say, then, never tell a woman that she has a cancer.

"I have now made a funnel-shaped opening, into which I can readily introduce three or four fingers; before, I could barely get one in. I have not gotten into the bladder nor into the peritoneal cavity, but I am afraid if I go farther posteriorly, that I shall open Douglas' pouch. I can trace the cancerous tissue to the internal os, but it does not pass to the cavity of the womb.

"You see that while there has been some hemorrhage, still it has not been alarming. Sometimes there is unpleasant hemorrhage. During the operation you are not apt to have much hemorrhage if you work rapidly, and quickly get down to healthy tissue. If hemorrhage should occur, do not use Monsel's solution (the sub-sulphate of iron), for it makes plaster-like clots, and so corrugates and contracts the parts that you can not continue the operation. Under these circumstances, ordinary cider vinegar serves an excellent purpose as a hæmostatic, without the inconveniences of Monsel's solution.

"Having removed as much as possible of this friable material, I purpose to apply fuming nitric acid to the raw surface. Usually, I prefer the application of Paquelin's thermo-cautery; but the instrument is out of order, and I do not think that I can reach all parts as well with the cautery as with a fluid. I apply the acid with a piece of cotton, allow it to remain for a short time, and remove by injecting water. I then again apply the acid. It is not necessary to use alkalies or oil to neutralize the acid. If enough water is injected, it will so dilute the acid that it can not injure adjacent parts.

"There will be but little pain from the operation, but she will probably feel some soreness from the position in which the limbs have been held. When she is put to bed she will receive a suppository of the extract of opium (gr. j).

"I am sorry to say that these cases are very common. Cancer is, I think, on the increase; but why it is I can not say. The disease more frequently affects the uterus than any other part of the body, unless it be the breast.

"You see that I have a little wound upon one of my fingers, but I am not afraid of inoculating myself with the cancerous matter, for I am in good health. If I were run down, it might be somewhat hazardous to get such offensive matter on a wound. It is the same with dissecting wounds, which occur usually toward the end of the session, and with those who are overworked. This is not the case with venereal disease. No matter whether the health is good or bad, one is liable to be inoculated with syphilis. Nothing would tempt me to thurst my finger into a vagina in which I knew there was a chancre. It was only yesterday that I was asked to take charge of a patient who had a chancre, but I absolutely refused to have anything to do with it. Some years ago I got caught. After examining a case, there appeared on my fingers a sore which would not heal. I showed it to Dr. Agnew, and he pronounced it to be a chancre. For awhile I believe that I was the most unhappy man in Philadelphia. The diagnosis, I think, was incorrect, for the sore disappeared, simply leaving a scar, and was never followed by any constitutional symptoms. A burnt child dreads the fire, and I can not be hired to put my finger where I know there is a chancre. Winter before last, in one of the ward classes, after I and a number of the gentlemen had examined the uterus in one of our patients, she called attention to a sore in the vagina, which proved to be a chancre. Some of the gentlemen looked rather frightened, and I can not say I liked it very well myself.

"A number of years ago, I attended a respectable woman in confinement. I then lost sight of her for several years, when she again wished me to attend her. When I called to see her, I noticed that she kept herself wrapped up. As on the previous occasion it had been necessary to use the forceps on account of the narrowness of the pelvis, I was prepared when the head would not come down, to apply the forceps. When I exposed her, I found the nates and buttocks one mass of venereal disease, and her neck was raw from the same trouble. I would have presented any gentleman with a hundred dollars to have applied the forceps and delivered the child. I stripped my arms to the elbows, and thoroughly applied a mixture of carbolic acid and vaseline. I then applied the forceps, using one hand only in the vagina. As soon as they were in position, I ran out of the room, and carefully washed my hands, and again applied the carbolized vaseline. I then delivered her, and again washed myself with the utmost care. For a number of days I waited anxiously to see what the result would be, but no bad effects followed."— *Glasgow Med. Jour.*

Ontario Medical Association.

Annual Meeting held at Toronto, June 6 and 7, 1883.

Dr. J. E. Graham, of Toronto, read an exhaustive paper on

THE BACILLI OF PHTHISIS.

The paper treated fully of the question in its present bearings to medical opinion. From a careful analysis of forty cases in Dr. Graham's own practice he concluded that the bacilli are constant in cases of true phthisis. In some cases where they are not found at first, repeated examinations would reveal them. The second point of importance in the paper was that its author leaned very much in favor of the view that phthisis is contagious. He strongly recommended antiseptic inhalations, and everything which was of any real value in sustaining the powers of the system.

Dr. J. Ferguson remarked that of 2,509 cases, the statistics of which he had collected, the bacilli had been found in 2,417. Of the cases in which the bacilli had not been found, sufficient care was not taken, as in many of these cases few examinations of the sputa were made. After making all due deductions for error there seemed to be some relationship between the numbers of the bacilli and activity of the disease. Further, he believed that phthisis is really a contagious disease; but thought observers might be led into error for the following reasons: 1st. Phthisis, from its very nature, would be likely to have a long incubation period, and thus the true source of infection might be overlooked in many cases. 2d. That the germs seemed, from carefully conducted experiments, to lose their vitality soon after their ejection from the body in which they were produced. 3d. Few germs are contained in the expired air; yet, if this be concentrated and passed through a cage holding small animals, these can be rendered tubercular in this way; and, 4th., in many cases these germs came in contact with persons of sufficient power to resist them, just as in the contagion of other diseases. With regard to treatment he held: 1st. That rest was of great importance, as the lungs had not so much work to perform. 2d. Good nourishment of every kind. 3d. Elevation to a height of about 4,000 feet. 4th. Antiseptic inhalations, which ought to be kept up almost constantly; and, 5th., Isolation of the patient from sleeping with others in the family, or too close intimacy.

Dr. I. H. Richardson agreed in the view that phthisis was possibly one of the most contagious class of diseases.

Dr. Burt, of Paris, exhibited a patient who had been a very severe example of

TRAUMATIC TETANUS.

The wound from which the disease originated was on the lower front part of the forearm. He practiced complete insulation of the forearm by a thorough dividing of the nerves supplying it. The patient made an excellent recovery.

Dr. Strange, of Toronto, read a paper on

ACETONÆMIA.

He thought that the presence of acetones in the blood was the cause of the coma in diabetes. He referred to the hopelessness of diabetic coma, and expressed the desire that erelong we would be in a better position regarding treatment.

In the discussion that followed Dr. J. Ferguson held that the coma was not due to acetones in the blood, and further that the acetones did not depend upon the sugar condition of the urine for its existence in the system. Jaksch, of Vienna, has found acetones to exist in the blood in febrile states of the body, in cases of carcinoma, and in hydrophobia. Frerichs, of Berlin, from an examination of four hundred cases, concludes that, 1st., the nerve-centers are not the real cause of the coma. 2d. That the changes in the blood do not sufficiently explain it. 3d. That uræmia is not the cause, as coma is found without uræmia. 4th. That fat emboli is not the cause, for in some cases of coma no evidence whatever existed to show that emboli had anything to do with the trouble; and, 5th., that acetonæmia is not the cause of the coma. Frerichs regards the necrotic changes in the kidneys as the real cause of the coma.

Dr. J. Ferguson read a paper on

THE LIGAMENTUM TERES IN ITS RELATION TO HIP-JOINT DISEASE.

He showed that the ligament prevented undue rotation of the leg outward; and, secondly, that if of normal length it prevented the femur coming in contact with the acetabulum. In a normal hip-joint there is a slight interval between the femur and the os innominatum. Thus the pelvis is suspended from the thigh bones by the round ligaments. Should these ligaments be lengthened or ruptured from jumping or wrestling, severe trouble may ensue. He gave an instance of a case where hip-joint disease was in its early stage. The boy had been greatly addicted to jumping from high places. The patient died of pneumonia. On a careful dissection of the joint the round ligament on the affected side was found slightly ruptured and lengthened, permitting the head of the femur and the acetabulum to come into close apposition.

Dr. McPhedran showed

A CASE OF TRUE PRURIGO,

Which he was treating with very good results by the hypodermic injections of nitrate of pilocarpine. As much as one-grain doses had to be given before diaphoresis could be produced.

Salicylate of Bismuth in Typhoid Fever.

Prof. Henri Desplats, after a careful study of the antipyretic action of carbolic acid, salicylic acid, salicylate of soda, and resorcine, has demonstrated that these agents have an influence on the temperature and other elements of fever, whatever may be the nature and cause of the fever (typhoid, puerperal, variola, intermittent fever, erysipelas, rheumatism, pneumonia, etc.); that this action is sure and prompt when these drugs are administered in sufficient quantities; and that it is quick, causing rapid elimination. He then studied the accidents which these agents have been said to produce (collapse, convulsions, albuminuria, melanuria, etc.), and has established that they do not cause pulmonary congestion or renal lesions, and may be administered in albuminuria; that, if administered in too large quantity, they may cause collapse, but this collapse is rare and not dangerous; that in very rare cases, when given in enormous doses, they will cause convulsions, but these have never terminated fatally.

He now gives the results of his experiments with salicylate of bismuth in typhoid fever. He has administered it in twenty cases. It is more readily taken than salicylate of soda, being less soluble, and, therefore, of less pronounced taste. It consists of salicylic acid 2 parts, bismuth 1 part, although it keeps more readily if there is an excess of 3–4 parts in the 100 of salicylic acid. It may be given in unleavened bread or slightly aromatic syrup of acacia, in doses of grs. xv–xxx, though he has given from ℈iv–ʒijss in a day. A little seltzer water may be given immediately after it to enable the stomach to retain it better, if that organ be very irritable. It is always advisable that a more or less considerable quantity of liquid be drank after each dose. The effects obtained are of two kinds, *immediate* and *remote.*

The *immediate effects* are comparable, when the dose is sufficient, to those produced by carbolic acid, resorcine or salicylate of soda. To observe these, the patient should be closely watched, and the variations of temperature noted. Vulpian's statement that the temperature does not rapidly abate is erroneous, as M. Desplats shows by several cited cases. The immediate effect is never wanting when the dose is sufficient. It produces a less abatement of temperature than carbolic acid, but the sudden rise so often seen after the abatement from carbolic acid, is not observed. Beside the immediate effects, salicylate of bismuth has an incontestable action on the general temperature-curve. As has already been noted by Vulpian, the morning fall of temperature is greater, especially when no salicylate has been administered during the night. Desplats has several times observed that the temperature continued to abate during the forenoon, when the patient had taken no medicine, and thinks it very likely that these late effects are due to absorption of the drug, which is not very soluble. Sometimes instead of a fall of temperature, he has noticed abundant perspiration coming on during the forenoon, long after the last dose of salicylate; this seems to confirm the hypothesis of late absorption.

Remote effects.—It is important to know what action the salicylate of bismuth, regularly administered, exercises on the evolution and termination of the disease. Twenty cases are not sufficient from which to draw general conclusions, but they may be of service in drawing conclusions from an additional number of cases. Desplats divides his cases into three groups: the first includes the cases in which the fever was arrested, in which it may be said that the drug had an abortive action; the second group includes those cases in which the effect was signal, but not so marked; and the third, those cases which were rebellious to treatment, either terminating in death, or seemingly uninfluenced by the drug. Eleven cases are reported in which it had an abortive action. Vulpian has already observed one case in which the fever was arrested on the fifteenth day by salicylate of bismuth. He hesitated to attribute this effect to the drug, as the rose spots were absent. This does not negative the diagnosis of typhoid fever, however, as cases do occur in which the rose spots are absent. Four cases are recorded in which the action of the salicylate was less pronounced; and five cases, all very severe, two recovering, in which there was no apparent effect. In all, twenty cases are recorded. Epistaxis was a rare symptom, and was in no case abundant. Intestinal hemorrhages occurred in two cases, one of which recovered. Delirium was rare, in one case being attributable to the medicine; this was rather subdelirium than true, and there was also deafness. When large doses, ʒij–ʒijss, were given in three or four hours there was, in some cases, a depression of the vital forces, which passed off when the drug was discontinued. The best results were obtained with doses of ℈iv–ʒjs.—*Bulletin Gen. de Therap.*, June 20, 1883.

Lines to a Skeleton.

SIXTY years ago the London *Morning Chronicle* published a poem, entitled "Lines to a Skeleton," which excited much attention. Every effort, even to the offering of fifty guineas, was vainly made to discover the author. All that ever transpired was that the poem, in a fair clerkly hand, was found near a skeleton of remarkable beauty of form and color, in the museum of the Royal College of Surgeons, Lincoln's Inn, London.

Behold this ruin! 'Twas a skull
Once of ethereal spirit full;
This narrow cell was life's retreat,
This space was thought's mysterious seat.
What beauteous visions filled this spot!
What dreams of pleasure long forgot!
Nor hope nor pleasure, joy nor fear,
Has left one trace of record here.

Beneath this mouldering canopy
Once shone the bright and busy eye;
But start not at the dismal void—
If social love that eye employed,
If with no lawless fire it gleamed,
But through the dews of kindness beamed,
That eye shall be forever bright
When stars and suns are sunk in night.

Within this hollow cavern hung
The ready, swift and tuneful tongue:
If falsehood's honey is disdained,
And, where it could not praise, was chained;
If bold in virtue's cause it spoke,
Yet gentle concord never broke,
This silent tongue shall plead for thee
When time unveils eternity.

Say, did these fingers delve the mine!
Or with its envied rubies shine;
To hew the rock, or wear the gem,
Can little now avail to them.
But, if the path of truth they sought,
Or comfort to the mourner brought,
These hands a richer meed shall claim
Than all that wait on Wealth or Fame.

Avails it whether bare or shod
These feet the path of duty trod.
If from the bowers of ease they fled,
To seek Affliction's humble bed;
If Grandeur's guilty bribe they spurned,
And home to Virtue's cot returned,
These feet with angel's wings shall vie
And tread the palace of the sky.

Verbal Blindness.

Aphasia presents itself under such a variety of forms, and in such complexity of combination, that there can be no more difficult subject in the whole range of neuro-pathology or psychology. We have obviously used the term in its widest sense as synonymous with disorder of every kind of the faculty of employing verbal language. The following case of what M. Kussmaul would term verbal blindness is reported at length, but still with insufficient detail in some noteworthy points, in the *Gazette Medicale de Paris* of June 16th. A man of business, aged thirty-five, was suddenly seized whilst in the hunting-field with right hemiplegia and aphasia. He had been the subject of severe migraine, but with that important exception had enjoyed good health. Consciousness was lost a few minutes after the hemiplegic seizure. At no time was loss or impairment of ordinary sensation detected. Both the paralysis and the loss of speech were on the mend, when one day the patient wished to complete a letter which he had already begun, and found to his astonishment that he was unable to read what he had written but a few days before. Later on it was discovered that an inability to read printed matter also existed. The letter in question when compared with one dated three years back exhibited no special difference. In talking only occasionally did the patient substitute a wrong word. When seen by Charcot, five months after the onset of the seizure, no important defect remained except right lateral hemiopia and the inability to read. The hemiopia had been indicated by the fact that in attempting to play billiards the ball was seen to be but half a sphere. Acuity, however, in the other part of the field of vision was normal, so that the letters could be *seen*, though not read. Loss of memory for a certain number of substantives and proper names, including those of the streets of Paris, existed. He did not venture alone in the city because of the last defect. He could write his name, his address, and even a long letter, without any important errors, but he could not read what he had written. In order to decipher a word he slowly formed each letter of the term with the tip of his right forefinger, and then the ideas furnished by the movements of his fingers came to his aid and controlled the incomplete, insufficient visual impressions. In the phraseology of Dr. Bastian, the defective action of his visual word centers was helped out by the almost simultaneous activity of the *kinæsthetic* word centers. M. Charcot has utilized, from a point of view of treatment, the help afforded by this *muscular sense*. So much progress was made that whilst at the beginning of his re-education it took one hundred seconds to read one line of print, after sixteen days twenty-seven seconds sufficed to accomplish the same task.—*Lancet*, July 7, 1883.

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Philadelphia Academy of Surgery.

THE PRESIDENT, S. D. GROSS, M. D., LL. D., D. C. L., IN THE CHAIR.

DR. SAMUEL ASHHURST reported the following:

UNUSUAL FRACTURE OF THE PATELLA.

ON the 16th of August, 1882, I was called to see a little girl about four years old, who had struck her knee with a large glass marble. Upon examination I found an oblique fracture of the left patella, vertical in direction, and apparently extending from within outwards obliquely through to the joint surface of the bone.

The edge of the fragment presented sharp and clearly immediately underneath the skin, so that despite the unusual character of the injury, I was able to convince myself of the accuracy of the description given above. Slight pressure restored the fragment to its proper position, and it was easily kept in place by strips of adhesive plaster. The tenderness in the joint was such that a pasteboard splint was applied to the under surface of the extremity.

As the accident occurred at a watering place and the patient returned home in a few days, I am unable to give its after-history from my own observation, but I learn from Prof. J. H. Brinton that the patient came under his care with a severe attack of synovitis.

Upon looking over the various standard works, I find that while oblique fractures of the patella are referred to, few cases are given. Indeed, I have only been able to find two. *Hamilton on Fractures*, in his first edition, p. 439, mentions a case where a child five years old fell, and presented the same features of injury as in the case I report, excepting that the line of fracture was near the upper and inner margin of the patella, while in mine it was near the upper and outer margin of the bone.

Malgaigne, translated by Packard, p. 626, refers to a case reported by Daniel Turner, in which a piece of the patella in a girl thirteen years old came away from an abscess, and was believed to have been broken off by striking a door.

The cause of the injury in the case I report is also unusual. Particular attention was paid to the matter, but I was unable to elicit any other history than that immediately upon striking her knee the child cried out. Upon examination of the marble of glass, and probably one and three-fourth inch in diameter, there was a slight nick perceptible upon one side, which, however, seemed totally inadequate to cause the injury, and had no appearance of having been itself caused by the force of the blow, the edges being not at all sharp.

The case was the only one of the kind I have ever seen, and seemed sufficiently unusual to be placed upon record.

Dr. Samuel Ashhurst also reported the following case of

REMOVAL OF FOREIGN BODY FROM THE FEMALE BLADDER.

In the month of October, 1882, a married lady, about thirty-five years of age, presented herself at my office and informed me that a portion of an ivory knitting-needle had slipped into her bladder three days previously. The account given of how it happened was of course apocryphal.

As she had very few symptoms I at first thought she was mistaken, but upon introducing a long bullet-probe a bony substance was felt near the fundus of the bladder. I was able to make out the position of the knitting-needle to be nearly vertical, the lower end apparently resting upon the bas fond. After considerable trouble I succeeded in getting hold of the lower part of the needle with a pair of bullet-forceps, but found much difficulty in getting its end to engage in the urethra. When I at last succeeded in accomplishing this maneuver, I found that it constantly impinged against the walls of the canal, but was ultimately able to withdraw it without seriously injuring the mucous membrane. When extracted the cause of the difficulty was evident in the rough sharp edges upon the broken end of the needle which came first. There was some bleeding at the time, and slight vesical irritation for forty-eight hours afterwards, but no further trouble. The fragment of bone needle herewith shown is three and a half inches long and about three-eighths of an inch in diameter.

Dr. F. H. Gross also reports a case of

FOREIGN BODY IN FEMALE BLADDER.

About two years ago he was requested by Dr. Franklin to assist in the removal of a stone from the bladder of an outpatient at the German Hospital. The patient belonged to the working class, and was about fifty-six years of age. She said she had at one time worn a Meigs' ring pessary but had lost it (?) Dr. Franklin dilated the urethra and introduced a narrow pair of forceps, expecting to extract the stone or crush it. The hard body could be felt by the instrument, but could not be grasped. I endeavored to introduce my fingers into the vagina and give assistance in that way, but found the vagina puckered into a mass of folds and ending in a cul-de-sac. The Doctor then introduced his little finger into the urethra and soon astounded me with the announcement that there was a pessary in the bladder. I verified the statement with my own index finger. By pressing downwards the point of my finger came in contact with the inner surface of the ring pessary, which was incrusted and rough from deposits from the urine. By a lateral movement of my finger, the pessary was made to rotate completely around. We were not prepared for such a discovery, and had the patient admitted to the hospital, intending to devise some plan to remove this body from the bladder. Very early the next morning, however, the woman left the hospital, saying she had no time for an operation and must go to work. We have never heard anything of her since. The pessary, which this woman thought she had lost, had evidently produced ulceration and closure of the vagina, and afterwards by ulceration and absorption, through pressure, found its way into the bladder.

Dr. W. G. Porter related a case of

ENLARGED THYROID GLAND; TRACHEOTOMY; DEATH.

Julian N., a Russian, sixty-three years of age, applied for admission to the Presbyterian Hospital, June 13, 1881, with an enlargement of the thyroid gland, which was giving him considerable trouble, and gave the following history: His family history was good, and he had been perfectly well until three years previous to admission, at which time he had noticed a small tumor on the right side of his neck, over the thyroid gland. This had steadily increased in size, and latterly he had suffered from headache, dizziness, noises in the ears, slight difficulty in swallowing and occasional difficulty in breathing. These symptoms had increased with the enlargement of the tumor, and, obtaining no relief in the dispensary, he was admitted to the hospital on the above date, under the care of my colleague, Dr. Allis. On examination, the thyroid gland was found enlarged, and presenting the usual appearance of a goitre. The enlargement occupied the median line and right side of the neck, and had evidently encroached on and displaced the trachea to the left. He now complained of great pain in his head, entire loss of appetite, great prostration, difficulty in swallowing, and constant difficulty in breathing. He was put to bed, and put on a tonic course of treatment, with a most generous diet, on which he rapidly improved, and, refusing all operative treatment, left the hospital July 7, thirty-seven days after admission, greatly relieved.

On September the 16th, he was again admitted, under my care. His condition was very much worse. He was very weak and anæmic; his pulse was rapid, feeble and intermittent; his respiration was very much accelerated, noisy and difficult; he had great difficulty in swallowing, and his voice was reduced to a whisper. He also had a very troublesome cough, and expectorated great quantities of a muco-purulent matter, which was very fetid. Over the most prominent part of the tumor the skin had sloughed, leaving an irregular ulcer, larger than a silver dollar, the odor from which was almost unbearable. His lungs were carefully examined, but no disease in them could be detected. From the peculiar sound of the respiration, together with the constant expectoration of purulent matter, and the absence of evidence of lung disease, we were led to believe that an abnormal opening existed in the trachea, as the result of the pressure of the enlarged gland.

He stated that his present condition had rapidly developed after the introduction of a needle into the tumor by a surgeon whom he had consulted.

He was again placed on stimulants and tonics, and in a few days began to improve. His pulse became stronger and less rapid, with no intermittence. Expectoration and cough diminished, but the difficulty in breathing and swallowing remained about the same.

On September 21st, five days after his second admission to the hospital, just as I entered the ward, he was suddenly seized with a paroxysm of dyspnœa; he was terribly livid, struggling for breath, and by word and gesture implored us to do something for him. Dr. Allis was present, and we at once decided to open his trachea, in hopes of giving him at least temporary relief.

As the usual position of the incision for opening the trachea was covered by a slough, I determined to make the opening at the side. An incision was at once made along the inner border of the sterno-mastoid muscle, and after a rather deep dissection with knife and director, the trachea was reached and opened. A quantity of blood, mucus and pus was removed by sponges, and immediately the dyspnœa was relieved. His pulse now rapidly failed, but after the hypodermic administration of whisky and ammonia, he rallied, and soon felt very comfortable. The depth of the wound was so great that an ordinary tracheotomy-tube was of no use. I therefore cut out a portion of the trachea, and left the wound temporarily open by an ingenious contrivance of bent wire, suggested by Dr. Allis. The patient died, exhausted, three days subsequently, without any return of his suffocative symptoms.

The autopsy showed that an opening existed between the trachea and the sloughing portion of the goitre. The enlargement had mainly involved the right lobe and isthmus of the gland, and the incision which I had made into the trachea for his relief had passed directly through the left lobe of the gland, although the bleeding during the operation was as slight as I have ever seen it in tracheotomy.

Professor Semmola on the Pathogeny of Bright's Disease.

It has been a matter of dispute whether albuminuria has its origin in the blood, in the blood-vessels, or in the kidneys. The more modern view that its point of departure is the blood, and not the renal organs, derives striking support from the researches and experiments of Professor Semmola, of Naples. These experiments were made chiefly on dogs, and the results are published in the reports of the Academy of Medicine, June 5, 1883. Professor Semmola, following a line of experimentation instituted by him in 1850, injects subcutaneously in dogs and other animals abnormal quantities of albumen,—albumen of egg, milk, blood-serum, abumino-peptones,—and speedily renders them albuminuric. The animals are killed at different periods of the experimentation. When sacrificed twenty-four hours after the injection and absorption of an excess of albumen the kidneys presented no lesion, although the urine contained in the bladder was highly albuminous. This was regarded as a temporary albuminuria, and which, left to itself, would soon get well.

When the animal was killed at the expiration of four days the kidneys were found hyperæmic. Sometimes veritable hemorrhagic infarctions were noted, even when the quantity of albumen injected was no larger than six to seven grammes per kilogramme of the animal's weight. On the tenth day there was a migration of leucocytes around the internal aspect of the capsule; the epithelia of the tubuli had commenced to degenerate fattily; the kidney was in the first stage of inflammation.

On the fifteenth day there was found to be marked augmentation of the inflammation, which kept on spreading till about the twenty-fifth day the connective tissue fibers were seen to be involved, and the lesions of the first period of interstitial nephritis presented themselves. The animals shortly succumbed to the serious disorders produced by this experimentation.

It was sought to demonstrate by these experiments that the injection of albumen of egg produced more speedy and more grave lesions in the renal organs than when milk or blood serum was used. The nearer the albuminous substance used was like normal blood albumen the less irritating it proved to the uriniferous tubules. Professor Semmola has observed that patients in Bright's disease not only lose albumen in their urine, but also in all their secretions. If you cause them to perspire their sweat is albuminous; if you give them pilocarpine their saliva contains albumen in excess. Even the bile of these patients is albuminous. As a result of his experiments this writer concludes that Bright's disease is not essentially a renal affection, but a vice of nutrition, slow in its march, and produced often, if not chiefly, by suppression of the cutaneous respiratory functions, and characterized by an alteration of the albuminoid substances contained in the blood.

This vice of nutrition prevents the albumens of the blood from being assimilable, and they are eliminated as foreign substances by all the emunctories of the economy. The kidney is only one of these emunctories. This organ, whose excretory function is of such preponderating importance, having a large proportion of this altered protein element to remove, readily suffers inflammation, but such inflammation and its consecutive degenerations are secondary to the blood vitiation and the profound constitutional disorder.

These views are to some extent in harmony with those propounded by Mahomed in the *Lancet* in 1879. According to Mahomed the blood condition which produces the high arterial pressure of Bright's disease is the primary condition, and is not secondary to deficient renal excretion, as held by most authorities.

Semmola, however, merits a place apart from all others who have treated of the pathogeny of Bright's disease. He was the first to formulate the doctrine, since ably defended by Gubler and Jaccoud, and summed up in the following propositions of Gubler: "Albuminuria always indicates a relative or absolute excess of albumen in the blood." "Albuminuria recognizes for its cause a deviation from the normal type of nutritive movements; this deviation consists in a perturbation, temporary or permanent, of the phenomena of assimilation or disassimilation of albuminoid matters." This second proposition has for its basis a series of experiments which demonstrate that the filtrability of albumen varies according as its molecular state is modified by injections into the blood of water, common salt, or albumen; by the injection of certain substances which alter directly the blood corpuscles. It is this doctrine of molecular modification which is essentially Semmola's contribution to the pathogeny of albuminuria.

Two of Semmola's experiments, communicated to Jaccoud, and published in the second volume of his Pathologie Interne, are so striking, and throw so much light on the question, that they are worthy of reproduction here. A robust man is suffering from Bright's disease *a frigore*. Semmola takes from him three ounces of blood, isolates the serum, and injects twelve grammes in the jugular of a dog, from which he had previously abstracted twelve ounces of blood. The urine of the dog becomes albuminous in two hours.

Consequently the albumen contained in the serum of the patient was in a molecular state which rendered it unfit for assimilation. Thirty-five days later the patient is completely recovered. Semmola again takes from him a little blood and injects twelve grammes of the serum in the jugular of a dog; no trace of albumen is found in the animal's urine. Therefore, concludes this sagacious experimenter, the albumen of the first serum was, by the fact of the disease, altered and unassimilable, the albumen of the second serum has become, by virtue of the restoration to health of the patient, completely assimilable. Dogs are painted over their whole body with an impermeable varnish, and become albuminuric. The serum of these animals is injected in the jugular of other dogs, is not assimilable, and renders these animals temporarily albuminuric. The serum of healthy dogs, injected subcutaneously, or in the jugular, produces no such result. Jaccoud, from whom we borrow these last facts, remarks that these experiments do honor to the fertility of conception and scientific tact of the Professor of Naples, and he regards them as demonstrating the reality of the molecular alterations of the albumen of the blood, and the influence of these modifications on the filtrability of the albuminoid substances by the renal membranes and their passage in the urine. In other words, it is in the blood that resides the first cause of the disease.—*N. Y. Med. Jour.*

Fracture of the Neck of the Femur and of the Trochanter Simulating a Luxation of the Hip.

D. A., æt. 47, laborer, entered Hospital de la Pitie on the 19th of October, 1881, in the service of M. Verneuil. He was a vigorous well-made man, a confirmed drunkard. Four days ago he fell from a height of about 12 feet, and since then has been utterly unable to move the right lower limb. He can not state exactly what part of the body struck the ground first when he fell, but declares that a physician, who was immediately summoned, diagnosed a luxation of the hip, and made many vain efforts at reduction. Sent the next day to the Hospital de Corbeil, he was likewise treated for a luxation. These trials, though made under chloroform, proved as fruitless as those of the night previous. The patient was then sent to M. Verneuil. On admission the following symptoms were found: Enormous swelling of the entire right thigh and of the corresponding hip with great and extensive ecchymosis. Apparent shortening of the limb, abduction and rotation outwards. Considerable swelling of the gluteal region. Abolition of all spontaneous movement, and impossibility of the patient's raising his heel or of correcting the vicious position of his leg. Abduction and rotation outwards only may be produced, but give rise to great pain; rotation inwards, abduction and flexion are impossible. Palpation gives no precise indications on account of the great infiltration of the region. Indeed the head of the femur can be felt nowhere. It appears, however, that the great trochanter has undergone a movement of ascension. No crepitation. Percussing the heel gives rise to no pain in the hip joint. No retention of urine. Temperature axill. 98°6. The patient was examined by many surgeons, some of whom diagnosed *luxation;* others, with M. Verneuil, *fracture.* On the 21st of October the patient was chloroformed and examined. Still M. Verneuil could not find the head of the femur, nor elicit crepitation. In spite of energetic tractions, he could not succeed in bringing the thigh into forced flexion, abduction and rotation inwards, neither could he succeed in extending the limb to its normal length, and during all these maneuvers, the great trochanter moved with the rest of the femur, rising and descending with it. In face of this result M. Verneuil can not believe in a fracture of the neck of the femur, otherwise the tractions that he made were sufficiently energetic to have corrected the deviation. He concludes then that there is a luxation forwards, and proposes to reduce it the next day with the pulleys. That evening delirium tremens came on, and two days afterwards the patient died. Autopsy: Considerable effusion of blood in all the tissues of the thigh, rising in the sheath of the psoas above the iliac fossa. At this point between the iliac fascia and the muscle is a collection the size of the fist filled with black clots and bloody serum. Notable effusion of an analogous serum in the knee joint. The femoral head was in its normal position in the cotyloid cavity. *Simple fracture of the neck and multiple fracture of the great trochanter.* The fracture of the neck is intra-capsular in front and extra-capsular behind. The fragments are entirely separated; the inferior fragment is retained by Bertin's (Ilio-femoral) ligament alone, the sole portion of the capsule which remains entirely intact. The great trochanter presents a double fracture. 1st. An oblique fracture extending from the inner and upper part of the great trochanter to its lower and outer part, being prolonged backwards so as to separate into two equal parts the lesser trochanter and encroaching for three centimetres upon the diaphysis of the femur. 2nd. A transverse fracture of the upper fifth of the great trochanter. All these fragments present no impaction or even opposition, in a word, they are immobilized by the interposition of portions of muscles which they have torn or perforated, and in which they were enveloped doubtless at the time of the injury. On account of this muscular tearing, one of the osseous fragments has undergone a notable ascension backwards and inwards, and is found at a considerable distance from the surface of its corresponding section.

This observation is interesting both from a clinical and from an anatomical point of view. Clinically it shows: 1. The difficulty of the diagnosis of affections of the hip, and particularly it shows how very slight, at the patient's bedside, are the differences which separate luxation forwards from fracture of the neck. 2. The terrible gravity of surgical lesions in alcoholics and the reserved prognosis which should always be given in such cases. Anatomically it is remarkable for the extent of the fractured surfaces and the importance of the muscular lesions. The disposition of the different osseous fragments thus enveloped in the muscles, may, up to a certain point, account for the absence during life of crepitation, and of pain provoked by pressure upon the two extremities of the fractured limb. In order that there should be pain, and especially crepitation, it is necessary that the fragments should be in contact with one another. Now this contact was here rendered impossible by the interposition of the muscular fibers.—*Le Prog. Med.*

Removal of an Ulcerated Scirrhus of the Breast by the Aid of Caustic Anæsthesia.

BY M. JULES GUERIN.

In the month of January last, a lady æt. 60 consulted me about a tumor of the right breast of seven or eight years, duration. It was nearly four inches in diameter, occupying the whole of the breast, being irregular, nodulated in shape; hard to the touch; adhering to the skin, and having two small reddish fissures on the surface from which a small quantity of colored liquid oozed. The rest of the skin was pale, but traversed by large and prominent veins. The tumor was not adherent at the base and could be readily moved; no enlarged glands in the axilla. The general health was bad, and there was a catarrhal bronchitis of eighteen months, duration, accompanied by frequent cough and copious expectoration; pains in the kidneys, and cardiac trouble, characterized by frequent intermittance of the pulse, presenting a condition little favorable to operative procedure, which was however decided upon and carried out as follows: I applied around the tumor, about four-fifths in. from its border, a circular, or rather elliptical layer of Vienna paste, four-fifths of an inch in height and breadth, closely applied and limited by a double band of diachylon plaster. The patient instructed to inform us of the progress of the cauterization stated after a quarter of an hour, that all painful sensation, which had been very moderate, had ceased; I, however, left the caustic applied five minutes longer—twenty minutes in all. The caustic having been removed, the surface cauterized was wiped with lint soaked in vinegar, when a perfectly even blackish band was found. The breast having been raised, I passed a very fine platinum wire between the tumor and subjacent areolar tissue, in order to keep it elevated during the operation. I then incised horizontally and circularly the whole of the cauterized band; this was done without causing the least pain or hemorrhage, and as if without the knowledge of the patient. Having thus detached from its cutaneous circumference the whole of the tumor, I tore it out with my fingers, dividing with scissors some opposing fibrous bands. The operation lasted ten minutes; but two or three spoonfuls of blood were lost and only one small artery required a ligature, which came away two days after. The patient complained of no pain throughout the operation. The wound was syringed out daily and dressed with lint soaked in a lotion of carbolic acid (1-100) and alcohol (1-4). No febrile movement ensued; the appetite and sleep most satisfactory. But what is most surprising, the cough and copious expectoration ceased almost completely after the eighth day. The cicatrization was most regular. Healthy granulations touched occasionally with nitrate of silver, and dressed alternately with glycerine and carbolic lotion, regularly and gradually filled up the excavation. The border of the wound, remaining from the circular half of the cutaneous eschar remained in place more than three weeks, in the form of a band dry and closely adherent to the cutaneous cellular tissue. It separated but gradually in pieces. During this process, two facts were evident, viz.: That the very firm and adherent eschar formed an insurmountable barrier to the passage of the secretions of the wound, and thus prevented all absorption thereof. Such is the first serious operation performed with the aid of caustic anæsthesia. I leave it to surgeons to decide from it, its possible applications, and to the future, to point out how far this method shall—I do not say supplant, but—assist in certain cases anæsthesia by chloroform.—*Translation from Gazette des Hopitaux.*

Extremes of Heat and Cold.

When Fahrenheit discovered the intense degree of cold produced by mixing salt with snow or pounded ice, he concluded that he had reached the point of entire absence of caloric, and therefore designated that point as *Zero*, or nothing. How would the old philosopher open his eyes if he could resume his earthly investments, and dropping in at Vakutsk in Siberia, observe the thermometer standing at 78 degrees below Zero; or at Werkhogansk, in the same country, at 81 degrees below! These are said to be the coldest places on the globe inhabited by man. The extreme of heat is not so easily measured. One account mentions an interior desert of Australia, where a thermometer graduated to 127 degrees Fahrenheit, burst with the heat. It was hung in a tree and protected from the sun and wind. No one acquainted with the subject would think of protecting the thermometer from the *wind*. The idea is absurd and tends to throw doubt on the statement. We often hear of 120 degrees as a degree of heat attained in California, but it is doubtful if ever that temperature is attained by the atmosphere where there is no solar heat direct or reflected. We think 112 degrees may be set down as the maximum on this coast, that point being attained on rare occasions. In a residence of thirty-three years in San Francisco, the extreme heat has been 98 degrees, which occurred in September, 1852, on two consecutive days. Next to this comes the paroxysm of heat which occured at the termination of the first week in June, 1883, when 95 degrees was the maximum. In July 1876 it was 94 degrees. With these exceptions the mercury has rarely reached 90 degrees in San Francisco and the ocean climate. In the interior, however, the temperature is much higher. One account published in a newspaper in the interior announced that there had not yet been any hot weather, as the mercury had not risen much above 90 degrees.—*Pacific Med. Journal.*

Microscopy.

THE MICROCOCCUS OF CEREBRO-SPINAL MENINGITIS.—Herr Leyden demonstrated this micrococcus before the Berlin Society for "Medicine," on February 19 (*Medical Press*, April 2, 1883). He concludes that there can no longer be any doubt as to the parasitic nature of the cerebro-spinal meningitis. He has found in the exudation liquid of meningitis the same cocci as had been met with in pneumonia, and he has likewise proved the existence of the cocci in a case of pyocephalus.

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MICROSCOPIC ANIMALS IN BRICKS.—The weathering of brick walls into a friable state is usually attributed to the action of heat, wet and frost; but from recent observations of M. Parize, the real destroyer is a microscopic creature, and the action played by the weather is only secondary. He has examined the red dust of crumbling bricks under the microscope, and found it to consist largely of minute living organisms. A sample of brick-dust taken from the heart of a solid brick also showed the same animalcule, but in smaller numbers. The magnifying power of the instrument was 300 diameters. Every decaying brick showed the same kind of population, but the harder the brick the fewer were noticed.—*Ex.*

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BACILLI IN CONDENSED AQUEOUS VAPOR OF THE BREATH OF PHTHISICAL PERSONS.—A. Ransome condensed the aqueous vapor of the breath of persons in an advanced phthisis, by the method he invented some years ago (1869); the method of staining used was that of Heneage Gibbes, magenta and aniline being used, discharged by dilute nitric acid, and chrysoidin then added. It was found that in the aqueous vapor obtained from two persons suffering from phthisis, there was a bacillus which took the staining in the same manner as the bacillus found in phthisical sputa and in tubercle, and which is indistinguishable from that organism. In some cases the experiments were unsuccessful.*—*Royal Mic. Journal.*

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* But a great many eminent microscopists still continue to regard the Bacillus a myth—fat crystals.—ED. MED. NEWS.

A DEATH is just reported in Philadelphia, of a child, from eating candy loaded with "Georgia Clay." There seems no use of longer warning parents against candies. They are made of *clay*, *arsenic* and *glucose*. There is nothing but *death* in the cheap candies now in the American market. Glucose, or corn sugar, gives them sweetness; clay and white earths form the body of the candy, while arsenic and other deadly poisons are used to give color. *These are known facts.* Not one of the ingredients named but is injurous to adults. What are they to children?—*Science and Health.*

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THE BLUE COLOR OF MILK.—Herr Hansen, an authority in such matters, explains in a recent foreign scientific journal, the cause of the blue color of milk. He has discovered in milk which has become blue, a peculiar microscopical organism, known as bacteria, which multiplies with very great rapidity, and in so doing produces a peculiar blue matter similar to aniline. Milk which is kept in such a manner as to prevent the access of these organisms does not become blue. In view of these facts, it is evident that blue milk is unfit for food; and, although it may be taken with apparent impunity by adults with vigorous digestive powers, it should never be given to children, whose weaker stomachs would be unable to resist the tendency which such milk possesses. —*The Household.*

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THE STRUCTURE OF THE SMALL INTESTINE.—A histological discovery, which at first sight appears sufficiently remarkable, has just been made in the small intestine by Professor von Thanhoffer. It has been found that structures almost exactly similar to the taste organs of the tongue are disposed amongst the villi of the alimentary canal; but what function can possibly be possessed by "taste organs" in such a situation is, of course, perfectly obscure (*Centralblatt f. d. Med Wiss.*, January 20). The discovery of these bodies is entirely a matter of careful preparation and examination, osmic acid and chloride of gold being the most favorable reagents. The appearance of the organ is that of a bowl or bud, lying, as a rule, at the base of the villi, where they are mutually connected; but occasionally they are found rather higher, or even close to the summit of the villus. Just like the taste-corpuscles, these structures vary considerably in actual size and in the relation of their height to their circumference. Their general appearance is readily described; they consist of two layers of epithelial cells—the one external, serving as a covering; the other layer internal, constituting the special organ. The latter are prolonged at their free extremity in the direction of a pore which lies at the apex of the bud, and some of them possess a short hair-like process. The actual connection of these peculiar organs with nerves has not yet been traced.—*Med. Times and Gazette.*

Fixing Aniline Dyes, Etc.

Doctor Thacker, *Dear Sir:*—There seems to me a much simpler way of making aniline colors remain in the tissue stained with them, than the method described in your last issue. The inventor, besides leaving us in the dark as to his manner of preparing tissue for the reception of color, gives a somewhat elaborate formula, without telling us whether we are to put the different dyes in one dish, and stain by one immersion or separately. Such formulas have a rather impressive sound to the ear; but when one addresses himself to the application of them, he is apt to become bewildered, humiliated, finally angry, throwing the work aside as "too much for him."

My present method is as follows: after bringing the tissue to the state for coloring, the last stage being always absolute alcohol, from two to twelve hours, I put my dyes (ninety-five per cent. alcohol being the medium) in one dish, and immediately insert the object to be stained, their sections being merely dipped. From the dye the object is (after dripping a few seconds) passed to spirits of turpentine in which no color is ever lost. In an hour or so somewhat elaborate brushing takes place, and a change to fresh turpentine. Here it lies until the slide is got ready. Mounting then proceeds as usual. The balsam should be softened with turpentine, which carries off no color while evaporating.

By adding two drops of alum water to the ounce of dye, there is greater certainty of permanence. Of course slides should be exposed to daylight as little as possible.

A word or two concerning the initial preparation of tissue may interest the reader.

If mere outline of form and crystals are sought, the old way is the best—bleaching in Labarraque's solution; washing in water from thirty-six to forty-eight hours, changing the water three to four times; then into ninety-five per cent. alcohol for two or three days, followed by a residence of several hours in absolute alcohol.

If desirable to retain the cell-contents, the best bleacher is nitric acid, which may be used at full strength, removing the object as soon as the chlorophy disappears, and washing the same as with the solution—subsequently treatment every way the same, except that the dyes should perhaps be a little weaker, the objects being decidedly more dense than by the other method.

Color is absorbed according to density of structure. If red and blue are employed, those parts which are of the clearest red may be set down as the densest, the red being much more readily absorbed than the blue. Those showing the clearest blue are the softest, that dye being slow to act. I think an exact record of the relative density of structure could be made, by noting the gradation of color, where two or more dyes are used together, keeping the above-mentioned law in mind.

The number of dyes employed makes no difference with their independent action—each taking more or less part in the process. In truth, I suspect that the more dyes one makes use of the greater the variety of hues. Mr. C. C. Merriman, of Rochester, has experimented successfully in this last; and I think he holds the opinion just stated. Excellent material for exhibiting any form of staining is longitudinal sections of stem of Palma Christi leaf, near where the leaf begins.

Very truly yours,

L. R. Peet.

Yalaha, Florida.
August 1, 1883.

Gleanings.

Chloral Hydrate as a Vesicant.—Dr. F. D. Ritter, of Gaines, Pa., writes to Dr. T. Gaillard Thomas, as follows: "In complying with your request, I write you concerning my experience with chloral hydrate as a vesicant. Some three years ago I accidentally discovered that when powdered chloral, sprinkled upon ordinary adhesive plaster and melted by a gentle heat (not more than enough to cause the plaster to adhere to the flesh), is applied while warm to the part where the blister is wanted, within three minutes a gentle heat is felt, increasing in intensity for about three minutes more till it is like a burn, then gradually easing off, until, at the end of ten minutes, the parts feel free from pain. The secondary effect is soothing; in some instances within half an hour a second burning is felt, though not so intense as at first, nor so lasting. If, at the end of ten minutes, or as soon as pain has subsided, the plaster be taken off, the surface is found as effectually denuded as by a cantharidal plaster after six hours, though the discharge is not so great. Thus, within ten minutes the work of an old-fashioned blister is accomplished; and the great advantages of the chloral plaster over the cantharidal are: 1st. Its rapidity of action, thus relieving pain, and producing the counter-irritation upon an engorged organ before the congestive action has had time to pass into more than the congestive stage; 2d. Its ease of application; 3d. It need never be taken off to have the blister dressed; but the original plaster may remain until the sore is entirely healed, and the plaster loosens and comes off itself. This is in part my experience, and I would have given it to the profession before, but supposed it was well known."—*New York Medical Journal.*

Plaster of Paris Pessary.—Dr. B. F. Dawson stated that he wished to record that he had made use of plaster of Paris, molded within the vagina, with the most decided success, in two cases of displacement of the uterus. The first case was that of a woman suffering from anteversion and a very aggravated prolapse of the left ovary. She was placed in the knee-chest posture, and pledgets of absorbent cotton, each with a string attached, soaked in a mixture of plaster of Paris and water of about the consistence of gum and partially squeezed out, were placed in the posterior fornix of the vagina and around the vaginal portion of the cervix, and held in position. The vaginia was then cleaned out, in a few moments the cast had hardened, and the patient went away with instructions to withdraw the instrument should it cause pain. When she came back at the end of three days she said she had experienced great relief. On removing the plaster pessary, the mucous membrane with which it had come in contact, instead of being irritated, as one might have expected, was found to have been benefited by its presence; it was firmer and less irritable than before, and the prolapsed ovary had evidently been sustained. The second case was one of retroflexion, in which the pessary acted not only as a harmless agent, but seemed to give all the uterine support desired. The instruments were removed, placed in fire to burn out the cotton, and dipped into wax or paraffin for the purpose of making them impervious to the secretions and to render them more durable. This method of supporting the uterus commended itself for the facility with which it could be applied, for cheapness and for accuracy of adaptation.—*N. Y. Med. Journal.*

SENATOR, on Albuminuria, says (Amer. Prac.): It requires attention, not as a loss to the system, being easily replaced, but attention to it gives the best control of the patient; its excretion, beside, may be irritating to the kidneys. The medical treatment has not been successful; hygiene and diet, then, need more attention. Small quantities of food often is better than large meals, for the excretion of albumen increases during digestion. Albumen injected into the circulation increases its excretion; the inference is that food rich in it should be restricted. Besides, meat, increasing the urea and like final products, increases the risk of uræmia. While meats and fish are to be chosen, vegetables, except the leguminose, and fats constitute the most important food for these patients. Alcoholics are proven to irritate the kidneys, but light wines may be given. Spices and smoked meats are bad. Milk is of great value, but alone is not enough; bread and so on have to be added. The alkalies are irritants to the kidneys, but they improve nutrition, probably by influencing digestion and the condition of the blood. Attention to the skin is very important, and it should be kept in constant free action. The patient should be kept in bed, to keep up the action of the skin and to lessen the waste from muscular action.

GARSTANG ON URETHRAL CARUNCLE.—In the *Brit. Med. Jour.*, Nov., p. 932, is a paper on urethral caruncle, read by Mr. T. H. Garstang at the annual meeting of the British Medical Association at Worcester, in which, having called attention to the importance of this subject from the agony the patients are in who are afflicted with it, he stated that, besides the usual form, there also exists in some cases an allied disease, consisting of an extremely vascular and painful condition of the general lining membrane of the urethra, which may appear as a patch or as a ring, or may involve the whole canal, without the existence of any visible tangible tumor or excrescence, yet exactly resembling ordinary caruncle in its symptoms, and in its entire resistance to all forms of treatment except the total destruction of the diseased part. A series of cases are described with their treatment, the latter consisting chiefly in the local application of nitrate of silver.

In the discussion that followed, Dr. Edis expressed the opinion that some of the cases described (those which Mr. Garstang took to be the unusual form of caruncle) were instances not of urethral caruncle, but of irritable or vascular conditions of the urethra, nitrate of silver being sufficiently powerful to allay this, but not being strong enough to destroy a true caruncle; and that a saturated solution of carbolic acid would have been found more serviceable, and its application less painful. Dr. Cullingworth also stated that Mr. Garstang's cases might possibly be irritated conditions of the urethra, the symptoms being aggravated by hysteria, and that in such cases he had found simple dilatation of the urethra to be most efficacious.—*London Med. Record.*

THE present mania to find the bacillus of every disease that human flesh is heir to is well ridiculed in a humorous article in the Gaz. Medic. de l'Algeria, headed the Bacillus Amoris, according to which a California physician is the happy discoverer of this interesting animal. For the author, syphilis is not the result of a fresh infection, but slowly developed in an organism prepared by a former infection, which infection the author calls (by the leading symptoms) love-insanity. As the cause of this infection, the author found a bacillus whose virulence he could reduce by continued culture. A hypodermic injection of this fluid was made in a bachelor of fifty years of age. Next day he had his beard cut, bought a new suit of clothes, false teeth, hair oil, a diamond ring, a guitar, and read Byron's poems. A young lady of 25 paid $5 for a cosmetic, bought false hair, became lively, noisy, sang popular songs, sent invitations to young men, and complained of their indolence. In a third case, that of a youth of 16, his former character was completely changed. The formerly quiet and sedate young man became absent-minded, committed all sorts of childish follies, sat down in a basket-full of eggs while he looked at the photograph of a young lady.

Gastric Irrigation.—This operation is becoming every day more recognized as useful in suitable cases. Branchi relates four cases: 1. Chronic gastritis, simulating cancer, pains in the right side, great emaciation, vomiting of food and blood, followed by relief. Many remedies were tried with no good effect until irrigation of the stomach with water at 53.5° or 58° F. was resorted to. The patient felt better the same day. The irrigation was repeated every morning, at first with plain water, afterwards with water containing two drachms of bicarbonate of soda to the quart. The patient was discharged cured in a month, having gained 15 pounds in weight. 2. Chronic catarrh (drunkard's), with probable pyloric stenosis of inflammatory origin. There were pyrosis and vomiting of food, preceded by pain in the epigastrium; cure, in a month. 3. Gastric catarrh, with marked dilatation of the stomach. Great improvement followed in three days, when the patient left. Carcinoma of stomach; fixed pain in the pyloric region, vomiting of blood. The patient experienced much relief from the irrigations, and was able to take liquid nourishment, and gained strength for a time, but died after a month, worn out by the cachexia and debility.—*London Med. Record.*

Eclampsia Nutans.—Dr. Gantiez relates a case of salaam convulsions which he witnessed in a child, seventeen months old. The attacks were preceded by a period, varying from a few seconds to a minute, during which the child presented an absorbed air, seeming to be a little apprehensive, but not agitated. The eyes were raised and fixed, and there was a little pallor. Then suddenly any toy that was in the hand was cast away, the head was flexed upon the thorax and the trunk upon the pelvis. At the same time the shoulders were slightly raised and the arms thrown forward with the hands extended, as if to prevent a fall. These movements followed each other with great rapidity, sometimes as often as thirty times in succession, but usually only eight or ten times. After the attack the eyes were filled with tears, and there was an expression of astonishment upon the child's countenance. He was easily comforted and soon resumed his play. The attacks occurred about eight times a day, and since they began, at the age of nine months, had never missed a day. Bromide of potassium had failed to exert any controlling influence over the disease.—*Revue Medicale*, March 3, 1883.

THE BENZOATES AND URIC ACID.—In our issue of June 2, p. 615, we noted that Dr. Garrod believed that the benzoates would cause the disappearance of uric acid from the urine. Now, Dr. Edmund Alleyn Cooke (*Brit. Med. Jour.*, July 7, 1883,) says of some of his own observations:

"The results of the above experiments seem to point to the fact that the uric acid is not destroyed by benzoic acid, but exists in a state of combination (it may be as a compound acid), and when this combination is evaporated with nitric acid it gives no murexide with alkalies, and when it is precipitated by zinc sulphate solution, the uric acid combines with the zinc oxide. And the last experiment seems to demonstrate that an alkaline solution containing soda and potassa is capable of really destroying uric acid if kept at a temperature of 98° Fahr., even without the presence of benzoic or hippuric acids, probably by oxydation. This was a discovery of Schunk, who found the products of decomposition to be oxaluric acid, and finally urea and oxalic acid; and Dr. Basham has noticed that this takes place in the animal economy when potash salts are administered, coincidently with the diminution of uric acid."—*Reporter.*

ADDISON'S DISEASE AND THE SUPRARENAL CAPSULES.—From a study of the literature bearing upon this subject, Dr. Carl Burger arrives at the following conclusions: The suprarenal capsules are, from their structure, to be classed among the blood vascular glands, and have no important vital function to perform. They stand in no causal relation to the bronzing of the skin. This dark-coloring of the skin occurs not only in Addison's disease, but may accompany a variety of cachexiæ. Disease of the suprarenal capsules is not infrequent, and often runs its course without any of the recognized symptoms of Addison's disease. The greatest variety of lesions of the capsules may be seen in different cases of Addison's disease. Addison's disease depends upon an affection of the semilunar ganglia and of the solar plexus. This affection is usually caused by some disease of the suprarenal capsules, most frequently a tubercular inflammation. Disease of the semilunar ganglia and solar plexus may arise from lesions of other organs than the suprarenal capsules, or may even be idiopathic. The symptoms of Addison's disease may thus be present without any lesion of the suprarenal capsules.—*Allgem. Med. Central-Zeitung*, March 14, 1883.

Sore Throat and Albuminuria.—There are many authorities who contend that the simplest form of sore throat is a mild diphtheria—that even the most innocent case of the former disease is accompanied by a contagion, giving frequently rise to severe cases of diphtheria, and that in either case micro-organisms are the pathogenic cause can not be doubted. Dr. Laure (Deutsch. Med. Zeit., 1, '83,) has published a series of cases where sore throat was complicated by albuminuria. Such observations have recently also been made by the great clinician Leyden, who noted nephritic disturbances and even paralysis following simple sore throat where diphtheritic patches had not been present. Laure supposes that in his cases there existed a catarrhal co-affection of the kidney-epithelium. It is also possible that the complication was a so-called elimination-nephritis, viz., in most infectious diseases, in consequence of the obstruction to the circulation by the microbes filling up the lumen of the capillaries, further due to the disturbed process of filtration in the glomeruli and the altered blood-pressure, first congestion and then inflammation of the kidney ensues, causing the presence of albumen and tube casts in the urine. It follows that we should pay attention to the kidneys even in the simplest case of sore throat.—*Reporter.*

Puerperal Infection through Erosion of the Nipples.—The possibility of septic infection through wounds of the nipples, as well as through wounds of the genital apparatus, has hitherto received but scant notice. Professor Kaltenbach regards this occurance as probable, arguing from the etiological relation between erosions of the nipple and mastitis, and from the beneficial effects claimed by Hausmann to follow the treatment of the fissures by carbolic acid. Spiegelberg has shown the possibility of mastitis arising from infection through the nipples and openings of the lacteal ducts. Kaltenbach goes further, and regards every case of mastitis as of septic origin. The necessity of the greatest possible cleanliness of the mouth of the child, the hands of the nurse, and the nipple itself is self-evident.—*Deutsche Med. Zeitung*, March 1, 1883.

Infantile Constipation.—For obstinate infantile constipation and its consequent derangements, Dr. T. M. Lownds says, in the *Lancet*, July 7, 1883:

I would suggest the trial of pepsine wine, about five drops given with each meal of milk and water. I have found it best to dilute the milk at first with twice its volume of water, sweeten with sugar of milk, and give the pepsin wine in a teaspoonful of the milk and water separately, either just at the commencement or in the middle of the meal. I have always found this abolish curdy stools and constipation in young children.

For the same condition, Dr. John P. Hamilton recommends milk diluted one half, and to each ordinary bottle add one or two teaspoonfuls of Dinneford's fluid magnesia. The abdomen should be well rubbed with oil two or three times daily, and night and morning one teaspoonful of cold water or more given if the infant will take it freely. During the first fortnight after the treatment is commenced it would be well to give each second night half a grain of leptandra.

While still another correspondent has found good results from the use of compound liquorice powder.—*Reporter.*

BERTELS has used injections of carbolic acid in a case of cynanche sublingualis with success. Skibnewski (Vratsch, 1883, No. 1,) has used the same treatment in two very bad cases with excellent result (Centralbf. f. Chirurgie). In the first case the disease had been progressing for some time, until the throat and mouth were so much affected as to seriously interfere with swallowing and speech. This was also the case, to a greater extent, in the second. In the first case thirteen injections, two per cent. were made in five days, and grs, xij. of the acid used. The relief was very quick in one night, and in ten days the patient was discharged. The result in the second case was still more satisfactory. The disease had lasted four days, the tumor extended down to the clavicle, swallowing and speaking impossible, great cyanosis, tongue immovable. The injections were made in the afternoon, and the next morning the tumor was so much reduced that swallowing and speaking could be performed.—*Weekly Med. Review.*

CONSTITUTIONAL TREATMENT OF CHRONIC UTERINE DISEASE.—A forcible plea in behalf of constitutional measures in the treatment of chronic womb troubles is entered by Dr. Boisliniere in the *St. Louis Courier of Medicine*, April, 1883. He concludes his paper by the following practical suggestions:

"The late excessive tendency to specialize has led us to attach, in uterine affections, too great an importance to the lesions and not enough to the general condition. The morbid influence of the constitution on the uterus should be considered first, and the reciprocal influence of the uterus on the organism should be considered as secondary. The uterus does not lead an isolated life in the organism, but it is only a link in that harmonious chain constituted by all the organs, and if the action of that chain be disturbed, there will be suffering in every organ constituting the chain. There will be suffering in the uterus, as well as in any other organ, but not more."

THE TUBERCULAR NATURE OF DIABETIC PHTHISIS.— Drs. Immermann and Rutimeyer report in the *Centralblatt fur klinische Medicin*, of February 24, 1883, a case of phthisis in a diabetic subject, in which tubercle bacilli were found in the lung-cavities. Though convinced of the tubercular nature of that particular case, they are not prepared to formulate general conclusions from one observation. They state, however, very truly, that the more often tubercle bacilli are found in the lungs or sputum in similar cases, the more certainly will the etiological identity of diabetic phthisis and ordinary pulmonary phthisis be established. And further, the more certainly the tubercular nature of diabetic phthisis is proven, just so certainly will the greater frequency of phthisis in the subjects of diabetes demonstrate that the constitutional conditions in this disease are favorable for the reception and development of the parasite.

TRAUMATIC PARALYSIS OF THE QUADRICEPS MUSCLE.— Professor Lucke states that slight injuries sometimes cause a loss of function with rapid atrophy of the quadriceps extensor femoris. The electrical irritability is markedly diminished but never entirely lost. A passive effusion into the knee-joint occurs from relaxation of the capsule. In a similar affection of the deltoid there results, from loss of support, an apparent luxation. The author believes that many cases of so-called congenital dislocation of the hip are due to a like condition which obtains in the muscles about the hip. The prognosis of traumatic muscular atrophy when untreated is bad. But treatment, if undertaken early, is very successful. It consists in the application of a weak constant current at first, and the induced current later.—*Centralblatt fur Chirurgie*, February 24, 1883.

HÆMORRHAGE IN PLACENTA PRÆVIA.—Dr. H. Klotz, of the University of Innsbruck, in *Wien. Med. Woch.*, describes a method that he employed in two cases of very severe placenta prævia. Acting on a suggestion of Dr. Breisky, for the arrest of hæmorrhage in an atonic uterus, he inserted two fingers of his right hand into the space behind the cervix uteri and pressed them firmly up between this and the vagina. By means of these fingers he hooked the lower part of the uterus strongly forward toward the pubes. He then made firm pressure on the fundas of the uterus by means of the left hand. Digital and manual compression on an ante-flexed uterus arrested the bleeding. He had to keep up the pressure in one case for three quarters of an hour. Both children survived.

EFFECTS OF THE INTERNAL ADMINISTRATION OF GLYCERINE.—Dr. Tisne speaks highly of glycerine as a therapeutic agent internally administered. He states (*Gazette des Hopitaux*, March 17, 1883) that it causes no irritation to the mucous membrane of the digestive tract beyond exciting a slightly increased peristaltic movement. It exerts a beneficial effect upon nutrition, increasing the weight and palliating many of the distressing symptoms in phthisis, such as loss of appetite, diarrhœa, night-sweats, and insomnia. Its action upon the liver is manifested by an increase in size of the organ and by a more abundant flow of bile. It has a diuretic effect and increases the excretion of urea, the chlorides, and the phosphates. The alkalinity of the urine is diminished, and if any pus be present in this fluid it is greatly lessened in amount.

INFLUENCE OF ERYSIPELAS UPON SYPHILIS.—Dr. Strack relates several cases in which the disappearance of gummy tumors was promoted by an intercurrent attack of erysipelas. He thinks this beneficial influence is exerted in two ways. The first effect is that which erysipelas exerts in common with other acute fevers. The second is to be referred to the local inflammatory processes. The increased flow of blood to the diseased parts causes a breaking down of the cell infiltration, which becomes thus more readily absorbed. —*Centralblatt fur Klin. Medicine*, March 3, 1883.

ARCHANGELSKI, surgeon to the marine hospital in Kronstadt, has been in the habit for some time of ordering cold baths for all cases of erysipelas where the temperature went above 39C., the duration of the bath being governed by the intensity of the fever, usually 10–20 minutes. (Centrlblt. f.

Chirurgie.) His conclusions are: 1. As an antipyretic the baths are preferable to quinine. 2. The use of cold upon the head and the general cold bath is more grateful to the patient than any other means. 3. With any weak or aged patients the baths should be given by a gradual cooling of the water. 4. The duration of the febrile period is much abbreviated. 5. The baths have no influence upon the complication of the erysipelas by abscess, nor upon the spreading of the disease.—*Weekly Review.*

OPERATIONS FOR CATARACT IN THE SUBJECTS OF CHRONIC DISEASE.—Dr Armaignac opposes the commonly entertained opinion that operative measures should be avoided in cataract occurring in individuals suffering from any cachexia. He has examined the records of a number of operations for the cure of cataract performed in his clinic, and he states that he has yet to meet with a failure in patients suffering from either diabetes, albuminuria, cancer, or malaria. In every case the cure was at least as rapid as it is usually in healthy subjects, and it occurred without inflammatory reaction or complication of any sort. Some of the operations were performed in the last stages of the general affection.—*Revue Medicale,* March 17, 1883.

THE TREATMENT OF SCARLATINA with remedies believed to have the power of destroying animal and vegetable organisms, is a plan that has been pursued with great differences of opinion as to the advantages derived. The benzoate of ammonia, said to be a germicide, is used by Mr. A. Drummond MacDonald (*British Medical Journal*) with happy effect, both in the milder and anginose forms of the disease. He gives it in doses of fifteen grains every three or four hours to adults, and proportionately to children, either alone or in combination with liquor ammonia acetatis.—*Weekly Med. Review.*

A SIMPLE METHOD OF PRODUCING LOCAL ANÆSTHESIA.—Dr. Cheize relates (*Moniteur de la Policlinique,* March 25, 1883), a simple procedure adopted by him in a case of ingrowing toe-nail, requiring immediate operation, at a time when he had no apparatus at hand. He saturated a little piece of lint with ether and place it on the toe. He then projected the air from an ordinary pair of hand-bellows upon the lint until the ether was evaporated. This was repeated two or three times, when anæsthesia was so complete that the nail was removed without the patient's knowledge.

GLYCOSURIA AFTER REMOVAL OF THE MAMMÆ.—M. Paul Bert related, at a recent meeting of the Societe de Biologie, the effects produced by the ablation of the mammæ of a pregnant goat. After the birth of the kid, the urine of the goat was found to contain a very considerable amount of sugar. Owing to irritation, caused by vain attempts of the kid to suck, a large phlegmon arose in that region. The sugar at once disappeared from the urine. Similar experiments made about the same time, by M. M. Bert and De Sinety, upon pregnant guinea-pigs, were attended with negative results.—*Gazette des Hopitaux*, March, 20, 1883.

Book Notices.

THE MICROSCOPE AND ITS REVELATIONS. By Wm. B. Carpenter, C. B., M. D., LL. D., F. R. S., F. G. S., F. L. S., etc. Sixth Edition. Illustrated by twenty-six plates and five hundred wood engravings. 2 volumes, of about 350 pages each. 8vo. New York: William Wood & Co.

We received this work last month too late to notice, and was only able to mention the fact of its receipt. The two volumes constitute the April and May numbers, 1883, of *Wood's Library of Standard Medical Authors.* This Library, as our readers are aware, is sold only by subscription.

The subscribers for the *Library* of 1883 are most fortunate in having the latest edition of Dr. Carpenter's work on the "Revelations of the Microscope" made a part of it. The price of this work, in a single volume, in the book stores, equals one-third the cost of the whole Library of twelve volumes. As a constituent of the Library, it is obtained at only half the usual rate.

The merits of the work are too well known to need any commendations. It is regarded superior to any other work upon the Microscope, although there are many works of the kind.

Dr. Carpenter greatly improved the work in preparing the sixth edition. The previous edition, the fifth, English (the English and American, we believe, do not correspond in number), was mostly revised by Mr. H. J. Slack, in consequence of the demands which were made upon his time and attention by official business, but the present one has been prepared by him alone, and an examination shows that very considerable changes and improvements have been made. On pp. 156–161, a concise account of the "diffraction theory" of Prof. Abbe is introduced, which has now given the complete *rationale* of the relation between the "angular aperture" of objectives and their "resolving power." And this is followed up by a discussion of the question (pp. 161–173) whether the opening out of the angular aperature to its extremist limits is the end to be specially aimed at in the construction of objectives for the highest kinds of biological research; in other words, whether an objective which resolves the most difficult diatom tests, is, on that account, the one best suited for following the life-history of *Monad*, or for studying the development of a problematical *bacillus* organism. In fine, the author has by himself given a careful and thorough revision of the entire treatise, so as to render it as serviceable as possible to those for whom it is specially intended. Into the first four chapters he has introduced a large amount of new matter, and has entirely written Chap. V., so as to embody in it an account of those methods of hardening, staining, imbedding and section-cutting, which have completely revolutionized many departments of microscopic investigation.

The student, physician and amateur will find the work of Dr. Carpenter upon the Microscope a most interesting one in the study of the natural sciences; for not only is the microscope an essential in the study of anatomy, physiology, pathology, materia medica, hygiene and chemistry, but it is also required in the study of botany, geology, entomology, agriculture, etc., if an appreciative knowledge of these studies is desired, and in nearly every department of life in which there are any things to be observed and studied. In even the common calling of cookery, it is of great advantage.

HAND-BOOK OF ELECTRO-THERAPEUTICS. By Dr. William Erb, Professor in the University of Leipzig. Translated by L. Putzel, M. D., Neurologist to Randall's Island Hospital, and Physician to the Clinic for Nervous Diseases, Bellevue Out-Door Poor Department, etc. With Thirty-Nine Woodcuts. 8vo. Pp. 366. New York: William Wood & Co.

This work forms the June number of *Wood's Library of Standard Medical Authors.*

The application of electricity and galvanism to the treatment of diseases is very fully set forth; as fully as a physician generally would need. The work is divided into five Parts, and the Parts into Chapters. Part I contains five chapters and has as its subject Physical Introduction. Part II has three chapters treating of "Physiological Introduction." In the chapters of the remaining Parts, there are treated "Methods of Electrical Examination and Electro-Diagnosis;" "General Electro-Therapeutics;" "Special Electro-Therapeutics," under which heading the uses of electricity in diseases of the brain, including the Psychoses, are described; "Electro-Therapeutics of the Psychoses" continued, as in Diseases of the Spinal Cord; "Diseases of the Peripheral Nerves;" "Paralysis and Atrophy;" "Pain, Neuralgia and Neuragliform Affections;" "Spasm and Contracture;" "Anesthesia;" "Diseases of the Cervical Sympathetic. Vasomotor, Trophic and Allied Neuroses;" "General Neuroses. Central and other Functional Neuroses;" "Diseases of the Organs of Special Sense;" "Diseases of the Organs of Locomotion, the Glands, the Thoracic Viscera and the Digestive Apparatus;" "Diseases of the Urinary and Sexual Organs." There are in all thirty-six chapters.

The author assumes as a fact that the student is already acquainted with the doctrines of physics in all of its main features, and, therefore, a large fraction of the work is not occupied in the elucidation of what is fully explained in the text-books upon natural philosophy, as is the case with many works of the kind. A short description, however, is given of those features which it is absolutely necessary to be informed of in order to understand what follows afterwards; but this is nothing more than a rapid sketch.

In many respects the work is superior to any other works of the kind with which we are acquainted. The author has evidently studied most thoroughly the therapeutics of electricity, and his work sets them forth in a very lucid manner, omitting nothing of value. The German mind seems especially adapted to such study, and their researches, consequently, are more thorough, and their deductions more reliable. Minute and accurate observations are characteristic of them, and more than any of the scientists of other countries, they understand the importance of full details without which oftentimes failure results without it being understood oftentimes the causes of it.

A careful study of the work will impart to the physician a very correct understanding of the therapeutic properties of electricity, and qualify him to apply it to the treatment of disease after the most approved manner.

TOBACCO: ITS EFFECTS ON THE HUMAN SYSTEM. By Dr. William A. Alcott. With Notes and Additions by Nelson Sizer. New York: Fowler & Wells. 16mo. Pp. 150. Paper Cover. Price 25 cents.

The object of this little work is to expose the evils of the use of tobacco. The author takes the position that the habitual use of tobacco begets diseases of various kinds, injures the intellect, is opposed to religion, is filthy, wastes property, leads to rudeness and selfishness, begets a desire for alcoholic stimulants, etc.

That some of the charges are true there can be no doubt; but that the injurious effects of the habitual use of it are frequently exaggerated by the opposers of it is also true. Men and women are met with every day of great age—60, 70, 75, 80, 85 and 90 and even 100 years old—who have used tobacco in some form ever since they were children, and have not, at any time, suffered any evil effects from it. Such evidence as this would seem to prove that it was not unhealthy, and yet we believe that it often is. There are peculiarities of constitution in which its effects are undoubtedly injurious. In many persons it debilitates the nervous system, produces trembling, weakens digestion, and may result in a condition similar to delirium tremens—a condition in which there is insomnia and hallucinations. There is probably no drug so different in its effects upon different persons—its use being very injurious to some, and apparently beneficial even to others. It is more injurious to those of sedentary habits than to those who lead an active life, when it does act injuriously. It tends with many to produce sluggishness of the energies, and there is no doubt that habitual users require more sleep than those who are not addicted to its use.

There can not be two opinions in regard to its filthiness. The chewer of the weed has constant necessity to expectorate, and, wherever he is, must be provided with a receptacle into which to spurt his tobacco juice and saliva. His necessities in this respect will oftentimes compel him to infringe upon rules of politeness, if not of decency. The smoker is even worse, in the way of annoying others, unless he can retire to some place by himself while he indulges.

With others about him, the smoker vitiates the atmosphere and sickens and makes every one uncomfortable. We have often been astonished and provoked at the thoughtlessness or selfishness of many who smoke. If it were not for cards prohibiting smoking, they would puff their noisome cigars in every place. Even the presence of ladies and children has no deterring effects with many in lighting their cigars or pipes—only authority and fear of ejectment. The extreme selfishness thus often manifested has been a matter of surprise to us a thousand times. Of course, this disregard of others has not been produced by the use of tobacco, but is a natural quality. If, however, the general practice of smoking was done away, the annoyances from it would cease, yet those who had indulged in it would be none the better morally.

As a tract against the use of tobacco, the book will fulfill a very good mission.

THE NATURAL CURE OF CONSUMPTION, CONSTIPATION, BRIGHT'S DISEASE, NEURALGIA, RHEUMATISM, "COLDS" (FEVERS), ETC. HOW SICKNESS ORIGINATES, AND HOW TO PREVENT IT. A Health Manual for the People. By C. E. Page, M. D., Author of "How to Feed the Baby." 12mo. Pp. 278. New York: Fowler & Wells.

As the title page indicates, this work has been published for the purpose of educating the people in matters of health. We sympathize in the object. We have frequently expressed our approval of imparting to the masses a knowledge of the laws of health, and the best methods of avoiding the causes of disease. We have advocated always the introduction of the study of anatomy and physiology in schools, seminaries and colleges; and we have also expressed the belief that it would conduce to the general benefit, and would be to the advantage of physicians, if the laity were taught to some extent therapeutics, pathology, and signs of the various diseases. The learned physician has nothing to fear in practicing his profession among intelligent people. The greater the general intelligence the more he will be appreciated, and the more readily he will be differentiated from the quack.

The work before us contains a great deal of information that will be valuable to those who study it. We have not had time to examine it very thoroughly, but enough to discover, that, while not very scientific, it contains a good many facts as regards diet, exercise, wholesome air. We do not believe, however, in the assumption to cure consumption by "natural" means—bathing, stale bread, with here and there a potato, or a boiled beet eaten, exercise, comfortable clothing, with the windows hoisted at night. We are of the opinion that the "natural cure" will prove as illusory in effecting a cure, as often as cod-liver oil, extract of malt and iron, with palliatives for the cough and night sweats. We do not disagree with the author in the belief that consumption is sometimes cured; but we are of the opinion that no specific medicine or plan of treatment has as yet been discovered.

But while we do not subscribe to much that is taught in the little book, we are disposed to believe that its general reading will be beneficial.

? QUIZ-COMPENDS. ? No. 8. A COMPEND OF VISCERAL ANATOMY. ESPECIALLY ADAPTED TO THE USE OF MEDICAL STUDENTS. By Samuel O. Potter, M. A., M. D., A. A. Surgeon to the U. S. Army. Author of a "Compend of Human Anatomy," etc. With forty-one Illustrations. 16mo. Pp. 101. Philadelphia: P. Blakiston, Son & Co. Cincinnati: R. Clarke & Co. Price $1.00. 1883.

This is No. 8, as is shown by the title page of a series of small works for the use of medical students, especially for those preparing for examinations. We have no doubt they will have a large sale among students in attendance upon Medical Lectures; and, no doubt, there will be considerable demand for them by young physicians.

There are to be nine of these "Quiz Compends." The volume that is to follow No. 8—the one we have before us—will be upon Surgery. Those that have been already published are upon Anatomy, Physiology, Obstetrics, etc. They are based on the most popular text-books, and on the lectures of prominent professors, containing information nowhere else collected in such a condensed, practical shape. They have separate authors.

Printed in small, legible type, each work contains vastly more matter than, at first sight, would be supposed. Their size permits them to be carried conveniently in the pocket.

Correspondence.

DR. J. A. THACKER:

Dear Sir:—Concerning the statements, made by parties in your city, in regard to sophistications practiced by us in the preparation of our malt extract would say that they are *utterly false.* You can easily satisfy yourself of the groundlessness of such charges by testing our malt extract in the following manner: To 120 grains of starch converted into a paste by boiling with 6 or 8 ozs. of water, and subsequently cooled to 130 to 160° F., add 2 drams extract of malt previously diluted with an equal volume of water, and stir briskly to secure a thorough mixture of the paste and extract; then test the mixture, at intervals of ½ or 1 minute, with iodine as follows: To 2 ozs. of distilled water, in a *clear flint glass vial* or test tube, add 2 drops of the mixture of starch and malt extract, and lastly two drops of an aqueous solution of iodine and iodide of potassium made in the following proportions: iodine, grs. 15; iodide of potassium, grs. 30; water, 4 ozs. If two drops of the unmixed starch paste is tested with this iodine solution in the manner above described, it quickly shows a *greenish blue* color followed by a copious precipitate of insoluble iodide of starch. The mixture of malt extract and starch paste may show some insoluble starch at the end of 30 seconds after adding the malt extract, but at the expiration of 1 minute the starch will be converted into the soluble form which gives a *dark blue* reaction *without precipitate*, and by repeating the tests at short intervals (½ to 1 minute) you can very satisfactorily trace the changes which are produced in the starch by the action of the Diastase of the malt extract. If the extract contains any substance which interferes with the iodine reaction, it would be apparent from the beginning, in the first test, when you get the soluble starch reaction, as well as when you get the dextrine and malt sugar reaction. As indicated above, you get the characteristic reaction with iodine, if the test is made *soon* enough after the malt extract and starch are mixed. In other words, if the test is made before all of the starch has been converted into dextrine and maltine, we would add in this connection that our preparation is *all* we claim for it, a *pure* extract of malt. We pride ourselves on never having indulged in misrepresentation in placing our goods before the profession. We never said *more* for them than their *merit* entitled them to. In this matter we have departed from the course pursued by many manufacturing pharmacists (we might almost say the majority of them). An examination of many pharmaceutical products would convince the most credulous, that the quality of preparations does not correspond with the statements of the manufacturers, as set forth in their advertisement.

Many articles advertised in *your own journal* would furnish abundant proof of the truth of our assertion. *All* makers of *malt preparations* claim for their articles a *large proportion of active Diastase.* Test them and you find nothing of the kind. Now if it is true, as we believe, that *Diastase* is the *most important constituent* of malt extract, then manufacturers are just as culpable as though they made and sold pills purporting to contain quinine, but without a trace of that salt in them. It seems to us that physicians and pharmacists fail to perform a most important duty they owe to the public, by not adopting a system of rigid examination of all articles supplied by manufacturing pharmacists and prompt exposure of all who practice fraud, followed by a general "boycotting" of the importers and their shams.

We were moved to say the above things in consequence of the absurd charges we have understood have been made against us by *interested* parties in your city. We have always tried to make *good* and *honest preparations*, and by careful and truthful statements concerning them to earn the confidence and approbation of the medical profession. In view of these facts, we feel that this misrepresentation of us and our goods is malicious and calls for correction.

Asking your pardon for this trespass on your time and attention, we remain, dear sir,

very respectfully, your obedient servants,
TROMMER EXTRACT OF MALT COMPANY.

Editorial.

THE CHOLERA.—The terrible prevalence of Cholera in Egypt, makes it a subject of the greatest interest at this time. At the present writing there is no information of any cases having appeared as yet in Europe, but we expect every morning to see the announcement by cablegram that cases have occurred in either some of the Mediterranean islands, or in Italy, France or England. When the disease reaches Europe, especially England, it will only be a matter of little time when we will have it in this country.

The *Lancet*, of July 28, states that it has received the full text of two letters which Dr. J. Mackie, Surgeon to H. M. Consulate at Alexandria, addressed to Earl *Granville* at the beginning of July with reference to the early history of the outbreak of Cholera. The first intimation of the existence of the disease was on June 23d, when eleven deaths at Damietta were reported to Dr. Salem Pasha, the chief of the Egyptian Sanitary Administration. On the 24th a Medical Commission left Cairo for Damietta, and on the following day it was met by Dr. Chaffey Bey (Egyptian), who had had considerable experience as to cholera at Geddah and Mecca; and also by Dr. Ardouin Bey, both acting on behalf of the Maritime, Quarantine and Sanitary Board at Alexandria. The Commission, however, returned to Cairo the same day; they appear to have performed their duties in a most perfunctory manner, doing little more than examine a few cases, and then establishing a *cordon sanitaire*, and breaking off all railway communication between Damietta and the rest of Egypt at Ras-el-Khalig, some thirteen miles from that town. No effort appears to have been made to learn anything as to the importation of the disease, the Commission merely reporting that their inquiries had not enabled them to determine this point. Later on, however, Dr. Chaffey Bey returned to Damietta to prosecute further inquiries, and his report will be looked for with interest.

All that has been rumored as to the negligence of the Egyptian authorities in leaving the population to die without proper medical and other aid, is fully confirmed by the statements in Dr. Mackie's letter. There was no organized medical or hospital service; everyone seems to have been paralyzed, and the unfortunate people "shut in by a cordon..... were left at the mercy of the disease, to die in numbers, and propagate the cholera."

Referring to the sanitary condition of the places first attacked, Dr. Mackie gives some account of the prevalence of bovine typhus in the Delta of the Nile, and he explains the extent to which the dead cattle, after having been skinned, were thrown into the Nile or into the nearest canals. The Damietta branch of the Nile, in its lowest part from Samanoud and Mansourah, seems to have been specially fouled by this means, the decomposing carcases being deposited in the shallows and amongst the reeds on the shores. The inhabitants were not only thus exposed to a polluted atmosphere, but since they draw their water from the Nile itself, they were doubly exposed to the deleterious influence of the putrefying animals. But it was not filth from without that has alone to be considered in connexion with the epidemic; the sanitary state of Damietta and of all Egyptian towns seems to be deplorable. Indeed no improvements would appear to have been made in this respect since the last epidemic in 1865, and even in the best houses leaky soil-pipes and open latrines for servants may be found in the very center of houses, none of the closets or drains are either ventilated or trapped, stinking cesspools abound, and such sewers as exist are in part blocked with deposit. When the first intimation of the cholera at Damietta was made known a large fair was in progress, and before the sanitary cordon was established some ten thousand people were dispersed to their homes. The disease does not, however, appear to have followed in their track.

What the precise origin of the epidemic was still remains unexplained. If the disease arise *de novo*, or if the poison can be developed from an existing organism under special local circumstances, those conditions obtaining in the Nile Delta, resembling as they do many with which the disease in its endemic form is associated in the vicinity of the Ganges, seem to have been favorable to such an origin, and superadded to these there were prevalent exceptional conditions of filth affecting both water and air. A great effort has been made by the Egyptians to prove that the infection was imported from Bombay. Some attribute it to four Bombay merchants who are alleged to have been at Damietta, others to a fireman from an Indian steamer at Port Said. The first story appears to be mythical in the extreme; the latter has been fully disproved since Dr. Mackie's letter was written; and in connexion with such a theory it is well to remember that when our Indian contingent arrived in Egypt last summer, cholera was really prevalent at Bombay, and yet no case happened either amongst the inhabitants or amongst the populations with whom they mingled. At the present time there is no exceptional cholera mortality in or about Bombay, and it seems quite certain that as yet there is no evidence whatever as to the importation of the infection from that place. One thing is evident from Dr. Mackie's letters, and that is that the Egyptian Sanitary and Medical Service has utterly failed to meet the emergency, even by a show of action; on the contrary, it has convinced all Europeans of its utter incapacity.

Disinfection in Cholera Districts.—We take the following from the *Lancet* of July 28th. It should be read by every physician, and should be pressed upon the attention of the Boards of Health. We have heard before of the burning of sulphur in the streets to stay the ravages of cholera, and had intended to have presented the subject ourself, in this number of the Medical News, but meeting with the editorial of the *Lancet*, we have instead, copied it.

"Attention has been drawn to a simple means by which a partial disinfection of streets in infected quarters can be effected. Bonfires are lighted at the corners of the streets, and sulphur sprinkled plentifully upon them. The sulphurous fumes are carried down the streets, and are, no doubt, of real value in disinfecting them, for sulphurous acid—the oldest disinfectant—still retains its pre-eminence for this purpose. But such disinfection is by no means perfect, for the fumes are enormously diluted with air, and can not be expected to enter the houses in sufficient quantity to remove all risk of infection. Sulphur fumigation of each infected house is necessary, and unfortunately this is not possible while it remains inhabited. At least one pound of sulphur to each 1,000 cubic feet of space is required for the efficient disinfection of clothing; and even this quantity would not be sufficient for excreta, or clothing recently polluted with excreta. What is wanted is a liquid disinfectant powerful enough to render the deadly evacuations harmless, and at the same time capable of free application to clothing, walls and floors, without serious inconvenience to the inhabitants or injury to clothing or bedding. In every house where cholera appears a tub should be placed, capable of holding a considerable quantity (say from ten to twenty gallons) of liquid disinfectant. All articles exposed to risk of pollution should be thrown into this tub and steeped in it for several hours; they may then be wrung out and sent to the wash in the usual way, provided always that the disinfectant is sufficiently active. Weak disinfectants are worse than useless for such a purpose, as they are sure to induce a false security. The liquid need not be wasted, for the whole of it may be subsequently used for washing the walls and floor. This we believe to be the most efficient and economical mode of disinfection during the progress of an epidemic. It can be used without risk in inhabited houses, it can be applied by unskilled hands, and need not, we feel sure, produce any perceptible nuisance. Of course the actual excreta will require to be treated at once, before removal from the premises, with a more concentrated disinfectant than is required for clothing, floors or furniture, which can steep in the liquid for any necessary time. To avoid waste, the liquid disinfectant should be applied to the walls, ceiling, floor and air of each room, by means of a syringe throwing fine spray."

FREMONT, O., 1883.

LARGE ANGLE OF APERTURE OF MICROSCOPIC OBJECTIVES.—Dr. Carpenter, in the last edition of his excellent work on the Microscopes, takes occasion to state that his views remain unchanged as regards the unsuitableness of objectives of very high angle of aperture for biological work. While he admits that lenses of extreme angle have superior resolving power for exhibiting the minute lines upon diatoms, yet he does not consider them efficient for work. He also considers it *not useful* to work an objective of low power and very wide angle up to a very high amplification by deep eyepiecing. He says "He would now be blind, instead of possessing as good and sensitive a sight as he had ten years ago," if he had tried to do the work of the last ten years by such a plan. We will quote from him on the subject: "As it has been politely suggested by an American controversialist, that the author's inability to appreciate the supreme value of wide aperture may be due to the senile deterioration of his vision, the author is happy to be able to state that—thanks to his habit of using shallow eyepieces, and of never persisting in Microscope work when he has felt visual fatigue,—his eyes are now as fit for microscopy as they were when he began so to use them nearly half a century ago."

As our microscopic readers know, we have always advocated glasses of medium angle of aperture for work. We have many lenses in our cabinet made for us by the most eminent makers of the world, some of them of the widest angle that has as yet been attained, if not the highest that can possibly be attained, *viz.*, 180°, but we never use such for any work. We are opposed to *straining* the amplification. When we are examining an object that a half inch objective does not magnify sufficiently with an A eyepiece or at most a B eyepiece, instead of employing still deeper eyepieces, we select a higher objective, as a $\frac{4}{10}$ or $\frac{3}{10}$, or may be ¼ inch. A half inch lens that we have of 82° angle, that resolves p. angulatum easily, bears the magnification of a quarter inch glass with a B eyepiece, and even greater, yet, when we need such a power in any pathological work, we prefer to employ a quarter inch instead of it. We consider it folly to urge the employment of objectives for biological work of excessive angle of aperture. We are disposed to consider that those who have been thus doing like our friend, Prof. J. Edwards Smith, have been prompted to do so more for the purpose of producing a sensation than for any other object.

We think this last expression of Dr. Carpenter will do much in settling the subject finally, and will save many from foolishly expending money that they can not well spare; for very wide angled objectives are very costly.

Results of Pathological Observations.—It is an interesting and noteworthy fact that pathological observation is doing more to advance our knowledge of cerebral functions than physiological experiment. At any rate this would seem to be true of the doctrine of cerebral localization, for whereas physiologists agree to differ upon the interpretation of their experimental results in this matter, the clinical and pathological evidence in support of the doctrine is rapidly accumulating. Dr. Sharkey's recent paper read before the Royal Medical and Chirurgical Society is an instance of this, for, although clinical details were wanting, the lesions found in the brain and so accurately sketched by him harmonized very well with the doctrines of Ferrier. In the current number of *Revue de Medecine*, MM. Charcot and Pitres commence a series of articles upon the subject supplementary to a like contribution to the same periodical made by them four years ago, when they collected and sifted all the recorded cases of cortical lesions bearing on the question of the localization of motor function. They point out that since that time many observers have become convinced of the truth of the doctrine, which has been upheld particularly in the writings of Ferrier, Boyer, Wernicke, etc.; but they confess that there is not yet general conviction. Some of the opponents of the theory base their objections on abstract philosophical notions, or on doctrinal subtletics which MM. Charcot and Pitres decline to discuss.

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Original Contributions.

Arsenic; Its Effect upon the System.

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Arsenic is one of the mineral poisons that is found in nature. It forms one of the principle ingredients in a great many of the dyes that are used at the present time. In the manufacture of cloth, as a rule, the quantity is not large when we estimate the amount in a yard, but there are notable exceptions. However, it is not the large volume of water pouring over the precipice for a short time that wears away the rock, but the constant trickling for ages.

It is the same with arsenic in wearing apparel. If there was a large quantity used in manufacturing the fabric, its presence might at least be surmised and the goods refused, but in small quantities it is not noticed, and the wearer, after months of continued absorption of small quantities of it, becomes pale and anæmic, and is unable to name the cause. The physician who is called, after asking an innumerable number of questions and examining various organs, has to acknowledge, to himself at least, that the real nature of the disease is veiled in obscurity, and he makes a diagnosis to satisfy the question, as to the nature of the malady, simply for the purpose of not appearing ignorant.

At the same time that arsenic can be and frequently is introduced into the system in the manner already described, yet there is a more direct method, namely, taking it into the stomach. However, it does not matter in what manner or method it is introduced into the circulatory system, whether it is through the lungs from inspiration, through the skin by absorption, or through the stomach and bowels, it is a poison. This is the difference between arsenic and the bites of poisonous reptiles, for, as a rule, the latter is inert if taken into the stomach.

Physicians frequently prescribe arsenic for some eczematous condition of skin, or, perhaps, some malady that is of an intermittent type and intractable to other remedies. In this way it is frequently used in what we might denominate chronic intermittent fever. Fowler's solution is the preparation that is generally given, and, as physicians are aware, contains four grains of arsenious acid in a fluid ounce. In some malarial sections of the country it is called Fowler's Mineral Solution, and, it having been discovered to be of service in intermittent forms of diseases, especially fever, some have tried to profit by selling this solution, and calling it Tasteless Ague Drop.

Again, it is taken when not prescribed by a physician. Young ladies, and sometimes men, knowing that, for a time at least, it has a tendency to improve the complexion by producing a clear condition of the integument, they use it for this purpose. They probably begin by using three to five drops of Fowler's solution three times a day. After while they use six, then ten and twenty drops, or even more, at a dose. In this manner the habit grows with usage just the same as it does with opium or tobacco.

The question is asked, Why do people form such a habit as eating or taking a poison like arsenic? The answer can be made by asking another question, Why do people form the tobacco and opium habit? You say that there is a stimulating and consequently a pleasant result from their use. Take the vast majority of cases and you will find especially that while the habit was being formed for tobacco, almost every fibre in the whole body rose up in rebellion. Yet the habitue just as patiently fought the system until the habit was formed. So far as opium is concerned, it being a calming and soothing narcotic, it can readily be understood how a person could become habituated to it use, and especially by one suffering pain that would otherwise be almost unendurable.

Then we find that the arsenic habit may have had its origin in rather a vain notion, viz.: to beautify the complexion, and after using it awhile for this purpose, they find that it exerts a peculiar influence over the system different from any other drug. At the same time that it is posionous to take it in large quantities or large doses if the system is not accustomed to its use, we find that to a person who has been in the habit of taking freely and in large doses, that it would have an injurious effect upon the system to stop using it suddenly.

It is stated that the peasants of Styria and Tyrol use arsenious acid quite freely, and consider that it is invigorating, yet, after having used it for some time and then ceasing at once, they suffer greatly. As the habit has been formed by taking a little at a time and gradually educating the system to its use, then a person must just as gradually educate the system not to use it. The proper way for a person who has formed this habit is to lay down a definite plan in which the dose is gradually lessened.

The question presents itself, in what manner does arsenic act upon the system? Does it have any affinity for any particular structure, if so, what is it, and how does it affect that structure?

We find that arsenic is introduced into the system in the same way that a great many other drugs are, viz.: by the stomach and circulation. By means of the latter it is carried to all parts of the body and comes in contact with the various tissues of the system. But here we have a peculiarity in arsenic, different fron any other drug, and hence the reason that it is used for this purpose. It has an affinity for connective tissue, but in the deeper portions of the body it can not produce its full results, as it must be assisted by an outside agent. This agent is the atmosphere. The action of arsenic and the atmosphere upon the connective tissue of the skin (and this is about the only place where the action can be observed) is to bleach it, or produce a whiter appearance of the integument. But there is something else that must be taken into consideration. While we have the bleaching properties or influence of arsenic and the atmosphere upon the connective tissue of the skin, we must remember that in this same locality we have the pigment, and it receives the same action as the former. As a result of this we have the pigment lightend in color, and the bleached connective tissue in connection with this gives the skin the clear and transparent look that is observed in those persons who use this drug.

The amount of pigment deposited in the rete mucosum or internal layer of the epidermis, is very marked in some individuals, and any agent that will either remove a portion of it or lighten the color, would have a natural tendency to "clear the complexion." Furthermore, arsenic acts upon the blood and lessens the amount of hematin which it contains. In so doing we have another cause for the lighter or bleached appearance of the integument. It exerts its action upon the pigment in the blood as well as that which is contained in the skin. Virchow claims that pigment as such is found in the blood. Then when in the integumentary capillaries it can be acted upon just the same as if deposited in superficial structure.

M. Pignot prescribes arsenic in apoplectic congestion in the belief that there is in that affection a great excess of red corpuscles, and that this agent has the effect of diminishing this constituent of the blood in a very decided manner.

One of the peculiarities of arsenic is that if its use be continued beyond a certain amount or a given time, we have another action taking place which is also connected with the connective tissue. This is a condition of relaxation and swelling of these fibres which produces a peculiar puffy condition, that is generally first noticed under the lower eyelids. If there has been a sufficient quantity used we may have this condition existing all over the body, and the patient expresses himself as feeling like he were puffed up, and he is bloated. This is caused by the same relaxed and swollen condition of the connective tissue fibres. This is the pathological effect upon this structure and if it is continued and increased it will cause death.

Arsenic has the peculiar property of adding to the corpuscles of the connective tissue. This addition is simply an increase of the albuminoid substance of the cell proper. This naturally increases their size producing an enlargement or swelling, and thus causes the puffy condition.

We have already stated the action of arsenic combined with the atmosphere has the peculiar effect of producing a bleached or blanched appearance of the skin. This is done first, through the power exerted over the melanin in the stellate cells located in this structure, and second, the swelling of the corpuscles in the connective tissue takes place at the expense of other structures, from pressure. The other structures referred to are the small nutrient capillaries of the integument. This pressure prevents them from containing their normal amount of blood, and in some instances entirely prevents it. This pressure, it must be remembered, is not along the course of the vessels. If it were we would have a capillary stasis and a passive congested condition. But the pressure is uniformly exerted upon the terminal or peripheral filaments, so that it is impossible for them to be dilated without some special exciting cause. By special exciting cause we refer to accidental conditions, inflammations, injuries, etc., for they are as liable to be developed in the system containing arsenic as any other, but the grade or degree might be influenced by its presence. With this pressure and bleaching of the pigment of the stellate cells (connective-tissue corpuscles of Virchow) we have given to the integument the clear and transparent condition that is quite frequently noticed after this drug has been used for a given length of time.

When arsenic is taken into the stomach in large quantities the first effect, when it comes in contact with the mucous membrane, is that of a local irritant. In a short time at least a portion of it is dissolved by the gastric juice and brought in contact with the entire lining membrane of this organ. Then the first effect is to cause a congestion of the mucous membrane, which is then followed by a reversed or anæmic condition. This irritation produces a reflex action. This reflex action causes the violent retching and contractions with more or less nausea and vomiting that exists in nearly, if not all, cases where an overdose has been taken. Nature recognizes the fact that an enemy has been introduced into her domain, and she makes an effort to eject him. This violent muscular effort again develops a congestion of the mucous membrane, and it may be sufficient to produce inflammation.

Here again we have a peculiarity existing. Arsenic has an affinity for the mucous membrane of the stomach whether it be introduced directly into that organ, or into the circulation through some other organ or structure. If, in a case of arsenical poisoning, it is found upon post-mortem examination that the mucous membrane of the stomach is highly congested or inflamed, it does not necessarily signify that the poison had been introduced into the system by being swallowed or taken into this organ first.

When taken into the circulation by other structures, a portion of it is brought into the capillary circulation of this membrane. The mucous membrane of this organ secretes the gastric juice, and consequently is bathed in it. The two coming in contact form an irritating agent that is much more potent than arsenic by itself. We may have the mucous membrane of the intestines congested also, but not so marked.

After arsenic has entered the circulation, we find that it exerts its bleaching properties upon the blood. It attacks the hematin in the red blood-corpuscles. The latter absorbs a certain amount of the former and, as a result, swell up, and some even burst, pouring out their contents into the general circulation. This, then, not only lessens the number of red blood-corpuscles, but increases the serum or watery constituents thus producing an anæmic condition.

We have the same effect produced in the eye that we have upon the general surface, a blanching of the pigment, giving to the eye a bright or glistening appearance.

The effect is produced by the combined action of arsenic, air and light. From the air we have the induction of nitrogen. This quickens the circulation in the capillaries, and from this we receive the tonic effect of the drug. The com bination that produces the effect of bleaching the pigment is light, nitrogen and arsenic.

There is a pallor produced shortly after an overdose has been taken which is probably produced by internal congestion, but it is different from the clear translucent condition that follows its continued use.

The action of this agent upon the eye is to produce an ivory white condition of the sclera by the same process that we have upon the skin. The brightness and brilliancy of the cornea depend upon the same conditions. The pigment in the anterior portion of the iris is reduced, and we have a lighter tint of this membrane. The pupil is dilated, but responds to light. This is due to a contraction of the radiating fibres of the iris. There is also an hypermetropic condition caused by a contraction of the radiating fibres of the ciliary muscle. As this same influence is exerted upon the corpuscles in the connective tissue of the optic nerve, we have an interference by pressure upon the vessels producing an anæmic condition of the retina. Frequently a venous pulsation can be developed by pressure upon the eyeball.

Arsenite of copper in one form or another, either as Scheels green, emerald green, Brunswick green, etc., is largely employed in the manufacture of wall-paper, paper hangings, artificial flowers, confectionary, etc. Many cases of ill-health, caused by this practice, have been recorded.

A London manufacturer of wall-paper used two tons of arsenic per week. A square foot of such paper would contain a large amount of arsenic. Of some specimens that were analyzed there was as high as seventy grains to the square foot. A room covered with this kind of paper, unglazed, would have arsenic flying through the room in a state of fine dust, and after awhile enough would settle on books or papers in the room that if placed together would exhibit the pure drug and would be a *visible monument* as to the nature of its effect upon those who occupied the room.

Taylor states that a medical witness may be asked the weight of common or familiar measures of arsenic in powder. He then states that a teaspoonful of finely powdered white arsenic weighs 150 grains; a tablespoonful weighs 350 grains; and a pinch, or the quantity taken up between the thumb and finger of an adult, weighs 17 grains. The weights here given are the results of actual experiment, but as there is always more or less difference in the humidity of the atmosphere, or of the size of spoons, or of the thumb and fingers of adults, it is easy to see that variations from the above would be common.

The exact lethal dose is hard to be obtained on account of conditions that may be present and operate against it. With every thing favorable, from two to three grains would be a fatal dose for an adult. The time is indefinite and depends upon the condition of the system, the amount taken, etc. It might be stated at from two hours to three days. This refers to what we might denominate the acute cases, where a lethal dose had been swallowed. However, it must not be inferred that if a patient, who had taken a large amount of this drug, should be tided over the third day that he is entirely safe. Cases are on record where death did not take place for six, seven, sixteen and even twenty days. The following case is from Taylor, given by Mr. Soden: A man, aged 22, purchased seven ounces of finely powdered arsenic, and swallowed, between seven and eight in the morning, not less than four and probably six ounces of the poison. In about half an hour he was found vomiting; there was severe pain in the abdomen, with a rapid pulse and slight convulsions of the legs. In two hours purging supervened, and there was constant inclination to pass urine; the pain in the bowels became almost intolerable, the convulsive motions in the limbs more frequent, and the pulse very feeble, but still very quick. He died in less than *four hours*, after a dreadful fit of convulsive laughter, his limbs becoming suddenly rigid. In this case there was neither stupor nor faintness, but there was severe pain with convulsions. On inspection, the stomach was highly inflamed, and it contained two ounces of arsenic.

M. Blain stated that, associated with tannin, arsenious acid has been attended with a success in intermittents, greater than could be obtained from it alone, or even sulphate of quinia. Some physicians consider that in the entire list of the materia medica there is not another drug that is equal to arsenious acid in that most obstinate and troublesome affection known as rheumatic gout.

In the treatment, where a lethal dose has been taken, take and beat up raw eggs in milk and give it freely. A mixture containing lime-water, milk and albumen is very useful. Equal parts of olive oil and lime water answers a good purpose, the lime renders the arsenic less soluble and the oil forms a coating around it.

Taylor says when arsenic has been taken in solution the hydrated oxide of iron, if given in large quantity, will precipitate the poison in an insoluble form, and it may then become beneficial. A mixture of hydrate of magnesia and persulphate of iron may be used. The two clinical antidotes, as they are called, are present in the mixture, and the sulphate of magnesia, produced by decomposition, tends to act on the bowels and expel the poison. Dialyzed iron given in drachm doses every fifteen minutes is probably as good, if not the best preparation of iron that can be given in these cases.

"The oxide of iron appears to have no more effect on solid arsenic than so much powdered brick-dust, and to rest upon this as a neutralizer of the poisonous action of solid arsenic, would be a delusion. Dr. Geoghegan noticed in examining the stomach of a man who had died from arsenic, and to whom this substance had been freely given, that the white particles of arsenic were lying unchanged in the midst of the oxide. Casper made the same observation in a youth who died from a dose of arsenic in twenty-four hours. About a *pound* of the oxide was found in the stomach after death, and beneath this the white particles of arsenic could be seen with a lens lying upon the surface of the mucous membrane.

In chronic arsenical poisoning give dialyzed iron in twenty drop doses four times a day, at the same time lessen the amount of arsenic exhibited, if it is from a formed habit.

The following case may be of interest. S—— O—— went to work at the milliner's trade on the 11th of September, 1882. At that time she was enjoying excellent health. At the store they kept the doors and windows closed to keep out the dust on account of the many bright and fancy colored ribbons, flowers, etc. After working in this close room for about three weeks she got up one morning feeling extremely tired, and later had a severe pain in the right side. Remained at the store all day but felt "miserable," having a severe headache. Following this she had complete loss of appetite, coated tongue, sore throat, coryza, irritation of conjunctiva with lachrymation, headache, languid and depressed, pain between shoulders and in lumbar region, chilly sensations with slight fever. Was sick for about four weeks. During the time was treated by two physicians separately, the first one stating that she had typhoid fever, the second one that it was malarial fever. Was away from the city and recovered her health entirely. On the second of April, 1883, she went to work again at the same place under the same conditions. At the end of five weeks she had the same train of symptoms present themselves, and when I saw her she stated that she had another attack of malarial fever. Examination developed the following: Irritation of the conjunctiva; eyes suffused with tears, pupils slightly dilated, anæmia of retina, arteries small, veins full, hypermetropia one twenty-fourth, lights and shadows when working, puffyness under lower eyelids, irritation of throat and mucous membrane of nose, dry hacking cough, shortness of breath, languor, headache, icteroid condition, complete loss of appetite, tongue heavily coated, metallic taste in mouth, feels chilly and weak with a slight increase of temperature.

From the above statements it is evident that we have to treat a system that is susceptible to the influence of arsenic, as it is obtained in a close room from articles that are dyed with it. When she would remain away from the store for even one day she would begin to feel brighter and more cheerful, but, after being in the room for ten or twelve hours the same chain of symptoms would begin to manifest themselves. Treatment in this case was with iodides, bark and iron with good results. The most important was the removal of the cause.

Translations from Our Foreign Exchanges.

Translated for Medical News by Dr. Illowy, Cincinnati, Ohio.

SANITARY PRECAUTIONS FOR THE INDIVIDUAL AND THE GUARDIANS OF THE PUBLIC HEALTH.

At a special meeting of the *Societe de Medicine, publique* Paris, the following report, presented by Dr. Vallin, in the name of the committee, of prophylactic measures to be taken in case of invasion of cholera, was unanimously adopted and ordered to be published.

A.—INDIVIDUAL HYGIENE.

Precautions to be Observed in the Healthy State.

It must not be forgotten that even in great epidemics the persons attacked are the exceptions, and that the malady is frequently cured. Those who fear have less resisting power than the others; it is, therefore, necessary to preserve a calmness of mind.

Avoid over-exertions, excesses of work or of pleasure, prolonged vigils, the cold bath of too long duration; in one word, avoid everything that causes exhaustion.

The chilling of the body, especially during sleep from open windows, wearing too light clothes in the evening after a very warm day, the injection of large quantities of cold water, are especially dangerous in time of cholera.

Avoid any digressions from the usual regimen, and any indigestion.

The use of drinking water of bad quality is one of the most common causes of cholera. The water of wells, of rivers, of small streams, is frequently polluted by infiltrations of the soil, of water-closets, of sewers, and by the residue from factories. When we are uncertain as to the good qualities of the water used for drinking and kitchen purposes, it is prudent to boil every day a quantity, sufficient for the consumption of the next day; boiling makes it perfectly safe. If desired, a small quantity of tea, of hops, of centaury, can be steeped in the boiling water, and this infusion can be drank pure or mixed with a little wine.

In times of cholera wells must not be used at all.

No inconvenience can arise from the moderate use of fruits very ripe and of good quality; they should be always mashed up—a better way is to eat them stewed.

This recommendation especially applies to vegetables; they should be boiled whenever possible. The salads, radishes, the products of market gardeners, may possibly retain some of the dangerous germs scattered over the surface of the soil.

It has been recognized during all epidemics that the excessive use of liquors and intemperance favor in the very highest degree attacks of the malady. Certain persons believe that they secure themselves against attacks of cholera by drinking large and unaccustomed quantities of brandy or other alcoholic liquors; there is nothing more dangerous than this practice.

Ices or iced drinks, taken in quick succession during digestion, or when the body is perspiring, can at all times determine an indisposition having some resemblance to cholera. We must use them, therefore, very guardedly in time of an epidemic.

Precautions to be Observed in Case of Sickness.

The least digestive trouble may be the prelude to an attack of cholera; it must not be neglected. A physician should be called immediately. An attack may be prevented or arrested by rapid treatment.

It is most frequently by the matters vomited and by the dejections that cholera is propagated. These matters are not less dangerous in the mildest than in the severest attacks. They must, therefore, be disinfected and removed from the sick-room as quickly as possible.

All water-closets can become poisoned if such matters are thrown into them without having been previously disinfected. To every stool, or to every quart of liquid matter, should be added, either a large glassful of the following blue solution:

Commercial sulphate of copper, (50 grms) 750 grs.
M. Water, - - - - - - - - - - - - 1 quart.

Or a small cupful of chloride of lime in powder (nearly 3 oz.).

Whatever be the season, the room of the cholera patient must be well ventilated even during the night—either by window or by transom. Taking cold, which can easily be avoided, either by heating the room or by covering the patient well with blankets, is less to be feared than the vitiation of the air.

It is preferable that the disinfecting agent be placed in advance in the chamber destined to receive the dejections.

Carbolic acid, sulphate of iron, etc., excellent disinfectants under other circumstances, are either insufficient or inefficacious here.

The body linen or bed-clothes, soiled by the dejections, should be plunged at once, before removal from the room, into a bucket containing about twenty quarts of water, to which have been added, either four quarts of the blue solution or two teacupsful (about 150 to 200 grms.) of dry chloride of lime, tied up in a linen sack. They can be removed from the bucket, having been previously wrung out well at the end of half an hour. (Half an hour's immersion in this fluid, which must be renewed every day, suffices.) They must then be boiled at once, before washing them in the common wash.

Articles of clothing that can be washed must be submitted to the same treatment. Cloth and woolen goods must be sent with the bed-clothes to the fumigator, which will be described further on.

They can be disinfected with sulphur, in the following manner: They are hung up in an empty chamber, all the apertures of which are closed; the floor is sprinkled with a little water, to render the air moist, and thirty grms. of flowers of sulphur to every cubic meter of space are burned therein. The sulphur is placed in a metallic vase, and this again in a basin half filled with moist sand. The room is quickly vacated after lighting the sulphur, and not entered again till after the expiration of twenty-four hours.

If the clothes are much soiled, and of little value, it is best to burn them up.

Spots (made by the dejections) on the floor or on the carpet, must be immediately washed up with a rag with a solution of chloride of lime (a tablespoonful to the quart of water). The rag is buried immediately after use.

As soon as possible, the bedding of the patient should be covered with large sheets of tarred paper, or with newspaper, to prevent soiling. The paper is then burnt.

The mattresses, spotted or soiled, should be moistened by means of a rag with the blue solution, diluted to one-fifth, or with a solution of the chloride of lime a teaspoonful of the dry chloride to a quart of water.

These mattresses can then be removed without any particular danger by wagons specially appointed for the purpose (as shown further on), and disinfected in a hot chamber either by steam or by air heated to about 110 degrees.

In the absence of any such apparatus or such establishments, the mattresses should be spread out upon chairs in a closed room, and exposed for twenty-four hours to the vapors resulting from the burning of sulphur—30 grms. at least for every cubic meter of space.

In every house where there is a cholera patient two quarts of the blue solution, or two cups of chloride of lime mixed in two quarts of water, should be thrown twice daily in the water-closet basins.

A teacupful of the blue solution, or liquid chloride of zinc at forty-five degrees should be thrown every evening into all the sinks and drainage pipes.

On all drain, sink and water-closet pipes wherever possible there should be established syphons, or tubes of lead or stoneware, bent in the shape of a "U," so as to prevent the reflux into the interior of the house.

The kitchen offal and other household refuse should be kept in a well-covered vessel; every day there should be spread upon the surface, either half a glassful of the blue solution or two or three tablespoonfuls of the powder of chloride of lime. These debris are taken down every evening and emptied into a metallic receptacle furnished by the proprietor and placed in the yard of each house; the surface is then powdered with the chloride of lime. Every morning this box is emptied into the public carts, in charge of the employes of the Street Cleaning Department, who will place a quantity of chloride of lime at the bottom of each emptied box, to disinfect it.

B.—PUBLIC HYGIENE.

Uncleanliness of Houses and Streets.

Conservation of the detritus of organic matters in boxes hermetically closed and disinfected when necessary by means of a solution of sulphuric acid 1 to 100; daily removal of this detritus; more frequent removal of muck and the residue of factories; more effective surveillance of the water-closets and drains; formal obligation to throw into the drains, especially those communicating directly with the sewers, disinfecting substances placed to the disposition of the public by the prefecture of police; vigorous execution of the prescriptions relative to unhealthy lodgings and dwellings, etc.

The Flushing and Disinfection of Gutters and Sewers.

Multiplication of reservoirs analogous to those established in the neighborhood of markets and other public places; cleansing the main trunks at the point where they branch off; frequent flushing and disinfection of the sewer openings by means of antiseptic liquids (a thick mixture of chloride of lime or a solution of sulphuric acid 1 to 100).

Vault Cleaning.

The obligation to clean water-closets by means of hermetically sealed casks driven by steam. Disinfection of the water-closet or vault after cleaning by throwing into it a mixture of chloride of zinc 1 to 100, or a milk of lime by mixing 2 kilogrammes (about ℥v) of a dry chloride of lime in 50 quarts of water.

Drinking Water.

Obligation imposed upon the administration to distribute water of good quality only. . . .

Hospitals.

To prepare special hospitals at different points for the reception of transportable cholera patients; halls of isolations or posts of succor for patients admitted as urgent cases; creation of a system of *special ambulances* to transport the sick; installation in the neighborhood of the hospitals of establishments or hothouses for the disinfection of linen, bed-clothes, etc.; establishment of special laundries so as to avoid the washing of articles soiled by cholera patients with the ordinary wash.

C.—SANITARY POLICE.

In time all numerous assemblies of men at one point should be avoided; such reunions and assemblages become very easily centres of propagation of the epidemic; fairs, races, etc., should be postponed as much as possible.

The accumulation of filth, dirt, the residue of factories, decomposing in the courts or immediate neighborhood of houses, should be strictly prohibited. These decomposing masses should not be touched or removed until they have been well sprinkled with a solution of sulphuric acid 1 to 100. After their removal, the spot on which they rested should be equally well moistened with the same solution.

Above all, and more at this point than any other, must all stagnation of matter in the sewers be prevented, especially just below the mouths opening on the streets. These openings should be drenched with the above mentioned solution, or large quantities of chloride of lime scattered therein.

In times of cholera, vault cleaning should not be permitted except by means of hermetically sealed receptacles, acting by steam and destroying the gases under the boiler. After each cleaning, the whole vault, floor and walls, should be thoroughly disinfected by throwing in either a solution of chloride of zinc 1 to 100 or of chloride of lime 2 kilogrammes (about 70℥) to 50 litres of water (about 50 quarts English).

It is desirable that in time of epidemic all vaults be inspected and disinfected by the public administration.

The security of the inhabitants of a house can only be assured by immediately notifying the municipal administration of every case of cholera occurring in the house. (The powers conferred on the Mayors under article 3, section IX, of the law of the 16–24, August, 1790, rendering such declaration in times of cholera calamity obligator). The public should understand that there is nothing vexatious in such a regulation, and that its vigorous application is the best guaranty against the propagation of the disease.

This notification should be made to the Mayor's office before the expiration of 24 hours; and persons surrounding the sick, have the responsibility and care to see that such announcement is promptly made.

The attending physician is only held to make known to the persons surrounding the sick, without delay, the true nature of the malady.

A case occurring in a hotel or in furnished apartments, the declaration should be immediately made to the Commissary of Police.

The patients should not remain even 24 hours in the hotel or furnished apartment; they should be removed at once, as cases of urgency, either to a special hospital or any other establishment specially set apart for this purpose—nevertheless the patients shall have the right to have themselves removed to special apartments rented by themselves, provided that it be possible to isolate them therein from their neighbors.

When several persons occupy one room, one of them contracting cholera, the other members of the family, though well, incur the greatest danger, especially the children, if the patient be allowed to remain and be treated in that room; he should be immediately removed to a special hospital, where everything is prepared and ready for a rapid treatment just as might be required. Contrary to what is generally believed, the chances of being cured are much better in a hospital than in a stuffy chamber, where all the necessaries for immediate treatment are wanting.

On the occurrence of a case of cholera in a house, the house should be immediately inspected by a sanitary officer to assure himself of the reality of the malady, and to see that the necessay measures for a thorough disinfection of the house are taken.

If the guarantees of a thorough disinfection (by the parties themselves) be not sufficient, such disinfection must be made by an officer. A shelter must be provided for the inhabitants for 24 hours whilst the premises are being disinfected. It is only by taking the most vigorous measures at the very outset that the local epidemic can be prevented from becoming severe.

Heat at + 260° F., especially if moist, is the best disinfectant. It is without danger to tissues and primary matters. The municipality could easily establish, if necessary, a place or places where articles might be disinfected by exposure to the degree of heat above mentioned.

In every police station there should be established a depot of disinfecting materials in bottles and packages, distinctly labeled and the manner of using them described thereon (sulphur. chloride of lime, dry; sulphate of copper, pulverized; and chloride of zinc in solution 45°). These articles should be given to persons on the order of a physician, a sanitary officer or a member of the hygiene commission.

In order to insure the removal of soiled bed-clothes and their disinfection, the public administration might contract with some one to do this work under its supervision; wagons especially devoted to this service, and disinfected every day, would call at the houses, remove the infected articles and return them thoroughly cleansed at a stipulated price.

The public laundries should be placed under strict surveillance so that the soiled linen of cholera patients be not washed with the common wash; arrangements, though, can be made for their thorough disinfection here which had been neglected at the home of the patient.

Ambulances of succor. Special apartments well isolated in the general hospitals for urgent cases, special hospitals or barracks for cholera patients, special wagon for the transport of patients of all ranks should be provided and prepared at once, so that on the outbreak of the malady, which is generally a very sudden one, everything may be in readiness.

Selections.

The Bacillus Tuberculosis in its Practical Bearing on the Diagnosis, Prognosis and Treatment of the Disease.

J. E. GRAHAM, M. D.

Read before the Ontario Medical Association.

EVER since the discoveries published by Dr. Koch more than a year ago, pathologists have been busily engaged, first, in testing the genuineness of the discovery, and secondly, in placing a proper estimate on the presence of these bacteria in the diagnosis, prognosis and treatment of consumption.

With regard to the first point, the genuineness of the discovery, it must be admitted that so far, the great majority of the more distinguished pathologists have, by their investigations, strengthened the position taken by Koch, viz.: that the bacilli described by him are peculiar to tuberculosis, and that they are immediately connected with the production of the disease. The few who have arrayed themselves in opposition are, as he himself asserts, with two or three exceptions, men who have paid more attention to clinical medicine than pathology, and are for that reason unable to conduct these investigations with the delicacy and skill which are absolutely necessary in the solution of a question of this nature. When it is considered that Koch continued his investigations for two years after the discovery was made, before he published it, having at his command every facility for the proper carrying on of his work, and having at the same time a knowledge of bacteriology, perhaps superior to any existing scientist, one is surprised that men who have worked perhaps with interruptions for a few months, with very poor advantages, at a subject about which their previous knowledge was not very extensive, should be so ready to oppose themselves to the great discoverer. It may be safely said that the discovery has held its ground against any assaults which have been up to the present made upon it.

It is, however, with the practical aspect of the question that we, as physicians, are principally interested.

(1.) Can phthisis be diagnosed by means of the presence of bacilli in the sputa?

(2.) Has the number of bacilli any relation to the prognosis?

(3.) Has the discovery aided us to any extent in the prevention and treatment of this formidable disease?

In answer to the first question, it might be said that a number of investigations have been made, and the result has been in the affirmative, that we can diagnose the presence of this disease, even in cases which would remain doubtful with our ordinary means of physical examination. You all know how difficult it is sometimes to diagnose phthisis from chronic bronchitic cirrhosis of the lung.

In cases of this kind, the discovery of the bacillus would be a sure evidence of phthisis. The most important investigations which have been made so far, are as follows:

Balmer and Fræntzel (*Berliner Klinisch Wochenschrift*, 1882, No. 45) examined the sputa in 120 cases of phthisis and in that of all of them found bacilli. In cases of chronic bronchitis, they found none. They found the organisms most abundant in acute cases, and in those rapidly progressing.

Prof. D'Espine, of Geneva, found the bacilli in the expectoration of twenty cases, in whom the diagnosis of phthisis had previously been made. They were absent in five cases of chronic bronchitis, with emphysema. As the result of his experiments, Prof. D'Espine does not think that the number of bacilli is in proportion to the severity of the disease. He, however, is of opinion that they are always present in phthisis, and that several examinations should be made on different days, before the absence of bacilli should be considered certain.

Dr. Kowalski, in a paper read before the Medical Society of Vienna, stated that he has since May 1st, 1882, examined the sputa from 600 patients, and that he had not in a single case found the bacilli where tuberculosis was not present. He considers the presence of the bacillus to be a sure indication of phthisis, and that the number is in direct proportion to the severity of the disease.

Dr. Pfeifer, of Wiesbaden, in the *Berliner Klinisch Wochenschrift*, confirms the opinion of previous observers, viz.: that the bacillus is always present at some time or other in the sputa of tuberculosis and that they vary in number and size, in direct proportion to the severity of the disease.

In England, pathologists and physicians in practice have interested themselves very much on this subject.

Dr. West, at a meeting of the Pathological Society of London, gave the following conclusions reached after the investigation of over fifty cases:

(1.) That bacilli were found in the sputa of all cases of phthisis in which there was excavation, and that they varied in number with the rate of destruction.

(2.) That the arrangement in groups and masses indicated greater destruction than if the bacilli were isolated, unless the isolated bacilli were in great numbers.

(3.) That he had detected no variation in size of the bacilli in different cases.

(4.) That the bacilli being in his opinion evidence of destruction of the lung, they might, in some doubtful cases, be of diagnostic value, but that in most cases they were merely an additional confirmation of what was already clear from physical signs, and the same was true as regarded prognosis.

Dr. C. Theodore Williams read a paper at a meeting of the London Medical Society, February 12th, 1883. He, with his assistants, examined the sputa from 130 different cases. The results of his experiments agree with those already given with regard to the specific character of the bacilli. The fact that none were found in cases of bronchiectasis, in which the expectoration was extremely fœtid and abundant, separates the tubercle bacilli from the numerous organisms connected with fermentation and decomposition. As to the bearing of these on the prognosis of the disease, he does not think there is any definite ratio between the activity of the disease, and the number of bacilli, though as a rule they are few in cases where the disease is quiescent.

Dr. Whipham gave the results of the examination of twenty cases. They corresponded with those obtained by Balmer and Fræntzel.

Dr. G. A. Heron gave the results of the examination of the sputa of sixty-two cases. They were similar to those already given.

The general opinion of members of the London Medical Society appeared to be that bacilli were always found in cases of tuberculosis and in that disease alone. Also, that they varied in number in proportion to the severity of the disease.

In America, pathologists have interested themselves more in the question of the etiology of the disease.

No series of investigations have so far been made to show the bearing which these bodies have on the diagnosis and prognosis.

In order that I might satisfy myself on these two points, I examined the sputa of 40 consecutive cases. The method of staining employed was Ehrlich's. The specimens were allowed to remain in the staining fluid about three-quarters of an hour at 100° F., and afterwards mounted in Canada balsam.

In the majority of the cases the sputa was brought from the hospital by Mr. Patterson, and examined before I had seen the case. The experiments were conducted in this way so as to leave the mind fully unbiased.

Of the forty cases, in about twenty the staining was done by myself, in seventeen it was done by Mr. Patterson, and in three by Mr. Foster. I examined all the slides myself, and also examined most of the patients.

I will now give you a brief history of these cases, together with the results.*

Case 1.—Mr. S., my own patient. Physical signs show consolidation of a portion of the left lower and of the right upper lobes of the lungs. The disease is of four or five months' standing, and advancing rapidly.

On the first examination, the bacilli were found in limited numbers, on the second they were found in large numbers.

Case 2.—Miss G., my own patient. Case of rapid tuberculosis of three or four months' standing. Other parts of the body affected as well as the lungs. Few bacilli were found on first examination, but the second proved them to be present in large numbers. Between the times of these two examinations signs of breaking down of the lungs commenced.

Case 3.—Sputa sent by Dr. Cameron; case of advanced phthisis; patient has since died; bacilli found in very large numbers.

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* A number of the cases mentioned by the author we have omitted.—Ed. Med. News.

Case 4.—Sputa also sent by Dr. Cameron, with the following history: patient's father, mother, two brothers and two sisters died of phthisis. One brother living is subject to slight cough. In his own case the disease is of three years' standing; slight hemorrhage at different times; pulse 124, temperature 101; bacilli found in large numbers.

Case 5.—J. F., Ward 13, T. G. H. No history accompanies this case; said to be one of phthisis; bacilli were not found.

Case 6.—Miss B., T. G. H. Patient died the day after the sputa were obtained; disease was undoubtedly phthisis; made two examinations and found no bacilli. It is probable that in this case the sputa came from the throat and not from the lungs, as the patient was very weak.

Case 7.—D., T. G. H. Has had cough for the last five years, and has expectorated blood occasionally during the last two years. The whole of the right lung is involved, and part of the left; bacilli found in large numbers on the third examination.

Case 8.—J. B., T. G. H. Had an attack of pleurisy five years ago; has not been well since; shortness of breathing; not much expectoration, with greatly diminished expansion on the right side; dulness on percussion on the same side, with diminished breathing sounds; puerile breathing on the left side; two examinations made; no bacilli in either case.

Case 9.—McG., Dispensary patient. Sputa sent by Mr. Foster; phthisis; bacilli were found in large numbers.

Case 10.—G., Dr. Stewart's case. Patient caught cold seven years ago, and has been ill ever since; night sweats; left lung involved; signs of cavity in the left infraclavicular region; bacilli not numerous, but very distinct.

Case 11.—Mrs. D., also under my care. She has had cough for some years. This winter she has shown signs of phthisis. Bacilli, not numerous and small, but distinct. In this case the finding of bacilli was a material aid in diagnosis.

Case 12.—C., T. G. H. Left apex involved, other parts of the lungs healthy; bacilli not numerous, but distinct.

Case 13.—T. G. H. Patient suffering from emphysema and subsequent development of phthisis; bacilli found in moderately large numbers.

Case 14.—Large part of left lung involved; disease of a year's standing; bacilli not numerous, but distinct.

Case 15.—G. came to me for consultation; rapid tuberculosis, with few physical signs in the lungs; bacilli not numerous, but distinct. In this case the discovery of bacteria was of great assistance in the diagnosis.

Case 16.—B., my own patient. An undoubted case of phthisis of two years' standing; bacilli not numerous, but distinct.

Case 17.—S., T. G. H. Patient suffering from phthisis; bacilli not numerous.

Case 18.—C., T. G. H. Has had cough for the past two or three years; has lately lost flesh. Examination of the chest revealed the presence of bronchitis and emphysema. No bacilli.

Case 19.—N., T. G. H. Decided phthisis of ten months' standing; bacilli numerous.

Case 20.—T., T. G. H. Case of phthisis. No history; bacilli not numerous, but distinct.

Case 21.—C. B., Phthisis; bacilli numerous.

Case 22.—C. G., T. G. H. Phthisis of ten years' standing, which is now in an advanced stage; bacilli numerous. On examining these reports it will be found that thirty-three were decided cases of phthisis, three were of doubtful diagnosis, and four were cases of bronchitis, acute and chronic.

In the thirty-three cases positively diagnosis as phthisis, in thirty-one bacilli were unmistakably found; in one they were not distinctly shown, and in one (No. 10) they were not found at all, probably for the reason already given, that the patient was too weak to expectorate from the lungs. In the four cases of bronchitis no bacilli were found, and they were also absent in the three cases in which the diagnosis was doubtful. The undecided character of the diagnosis in two or three of the cases was owing to their having left the hospital. In the great majority of cases the bacilli were found on the first examination, but in many, two, three, and even four trials were made before they were found.

These investigations are of more value, as they were made by one in general practice, without any of the great facilities which belong to a pathological laboratory. They thus demonstrate the possibility of practicing physicians using this as an additional means of diagnosis. Within the last two or three months Mr. Heneage Gibbs has discovered a much more rapid and simple means of staining, which will tend to its further use by the profession.

The following conclusions might reasonably be arrived at from these experiments:

(.1.) That bacilli are found in the sputa of almost, if not all, cases of phthisis. It is doubtful if there is any case of active disease in which bacilli will not be found, provided the sputa come from the lungs, and five or six different examinations are made.

(2.) They are found on the first examination in three-fourths of the cases.

(3.) The presence of the bacilli is a positive evidence of the disease.

(4.) There are doubtful cases in which the examination of the sputa for the bacilli will be of decided value in arriving at a correct diagnosis. In three or four of the cases given the presence or absence of bacilli was to me of great assistance.

(5.) As to prognosis, the number of bacilli is in proportion to the amount and rapidity of the process of destruction. There are cases in which there is a rapid formation of miliary tubercle, in which the sputa will show a small number of bacilli. As soon, however, as in such cases breaking down commences, the bacilli will be found in very great abundance. This fact was shown in No. 2.

(6.) It might be said, as a general rule, that in the more chronic cases the bacilli are fewer in number and, I think, smaller. I must here express my thanks to Mr. Patterson for his valuable assistance in staining so many specimens.

Has this discovery had any influence on our treatment of the disease? Yes, in two particulars, the prevention and the cure. A most ridiculous argument has been used against the contagion theory of phthisis, that if it is proved to be correct, consumptive patients will not receive that care and attention from relatives as at present. There are very many ways by which the attendants on cases of phthisis could guard themselves from the disease without relaxing their efforts in administering all the comfort possible to the patient.

Rooms could be better ventilated, sputa ought to be disinfected and frequently removed. The attendants, more especially if they also are predisposed to the disease, ought to take sufficient out-door exercise and try in every way to keep in a good state of health.

The results of experiments made on the lower animals with regard to this subject of contagion are in my opinion as conclusive as it is possible for them to be. Altogether apart from these however, there is sufficient clinical evidence to support this theory. In my short experience as a practicing physician, I have seen enough to convince me of the strong probability of contagion in this disease. I have for instance observed the following case. A young man of scrofulous family, a young woman of a strong healthy family and one noted for the longevity of its members. Two or three years after marriage her husband became phthisical and died after six months' illness. His wife who attended him faithfully during his illness in a few months afterwards developed the same disease which pursued a rapid course and terminated fatally. She was the only one of her family who suffered from phthisis. My friend and former teacher, Dr. Richardson, of this city, who for the last thirty years has been a strong believer in the contagiousness of consumption, arrived at his conclusions entirely from clinical evidence. The following remarkable case came under his observation: A young lady the youngest of a large family of very healthy children, became very much attached to a friend who was suffering from phthisis. For two months she was her sick friend's constant companion and slept in the same room. Shortly after the death of the latter, she too exhibited signs of tubercular disease and died within a year. The tuberculosis developed itself in her case very gradually almost imperceptibly, showing that it was not the result of catarrhal pneumonia. Now this young lady was the only member of that family who was known to have had phthisis, in fact, a remarkably healthy record had been shown for generations back. She was as strong and healthy as the others previous to her stay with this consumptive patient. Is it not extremely probable that if this young lady had not come in close contact with the disease she would never have developed it? Would it not be proper with our present knowledge, to forbid such close intimacy which to all appearance was the cause of disease and death.

A mother suffers for some months and dies of phthisis. Two grown-up daughters wait on her. A short time afterwards the elder becomes consumptive and dies before the year is out, she is followed by her younger sister. A brother and sister who at that time were children under ten years of age, were all that remained with the father. They on account of their age and lively dispositions, were very little with their mother or sisters. One would suppose that the younger who was born a few years before his mother's death would be especially delicate. It was generally predicted that these two would follow their sisters when they arrived at the same age. This was not the case. They are now long past twenty and in very good health. They are liable of course to contract the disease if they should come in contact with it.

Take another case.—A family living in western Ontario, five of whom died of phthisis one after another. A brother who left home shortly after the first case appeared, escapes the disease and is now healthy and strong.

These are but a few of the many instances which I could give to support the probability of the contagion of phthisis. You may ask how it is that in such a place as the Brompton Hospital, nurses and physicans should have lived so long in the building and not have taken the disease. In order to understand this, one requires to study the peculiarity of bacteria in the etiology of disease. Some forms are exceedingly delicate and will only grow between certain degrees of temperature and on a particular kind of soil. Take for instance the Microsporon furfur the parasite producing that disease of the skin pityriasis versicolor. According to Dr. Thin's investigations, this will grow only in a certain range of temperature, and he experimented for weeks before he could find a soil in which he could successfully cultivate it. Such is also the case with the bacteria of tuberculosis. There is no doubt but that certain individuals possess a predisposition to the disease, and there is no doubt also but that close damp houses afford an atmosphere in which these germs luxuriate.

It is difficult to understand why very distinguished London physicians should be so opposed to the contagion theory. There are two reasons for this. They are as a class very conservative and perhaps slow to accept new views or theories. Consulting physicians have not the same opportunity to watch the course of the disease in families as the general practitioner. The instances of contagion in my opinion are as plain as those of typhoid fever, leprosy, or even syphilis. How many are exposed to the contagion of typhoid and do not contract the disease. It is probable that the germs of this malady are at all times floating in the atmosphere near the ventilators of sewers, and yet how comparatively few take the disease.

The history of leprosy is a remarkable example of how the whole profession may be misled by the opinions of a few distinguished men. This disease was considered contagious beyond all doubt by the ancients and those of the middle ages. In modern times Hebra and a few others of note from necessarily limited observation gave the opinion that the ancients were wrong, that the disease was not contagious; but at the present time, as the result of experience on this continent and the islands of the Pacific, the profession is rapidly returning to the old view, viz.: that it is contagious, and that cases should be isolated.

Thus it is seen that the arguments deduced from experience in consumption hospitals are not as strong or as convincing as one would at first suppose. Another feature in the etiology of phthisis and one difficult of explanation is shown in the following case:

A woman of tubercular parentage marries a man with similar antecedents. Nine children are born to them, every one of whom died of tubercular disease. Some in the earlier years of tubercular meningitis, and tabes mesenterica, while others at eighteen or twenty years of age died of pulmonary phthisis. In such an example it is difficult to understand how the children could become tuberculous at so early an age from outside influence. It is possible that they might have been infected through their mother's milk, or from the milk of diseased cattle. Dr. Watson Cheyne, in his experiments as given in the April number of the London *Practitioner*, found that when inoculations were made on pregnant animals the tubercular disease was not conveyed to the fœtus in utero. This is a point which needs further investigation. There are certainly cases in which it would appear that the germs might have been reproduced in this way.

As a result of this discovery it may be asserted that physicians are now more careful in the disinfection of sputa, ventilation of sick-rooms, and in warning healthy members of a family from intimate contact with the disease.

If on the outbreak of the disease the one affected were immediately sent to a warm equable climate, we would not have the sad record of a whole family falling victims to this dreadful scourge.

The inhalation treatment is the direct outcome of the germ theory of phthisis. A paper was read at the last meeting of the Association by Dr. Philp, in which the records of successful cases were given. In England there is a difference of opinion on this point. The experience of some has been negative, while others have had very good results.

In my own experience I have found respirators of benefit in allaying cough, but have seen no postive results in the cure of the disease.

On Dislocation of the Shoulder.

BY W. J. CHENOWETH, M. D., DECATUR, ILL.

Read at the Annual Meeting of the Surgeons of the Wabash, St. Louis & Pacific Railway, Fort Wayne, June 4, 1883.

To railroad surgeons dislocation of the shoulder is of special interest. 1. Because of its frequency. In general practice it occurs as often as all other dislocations together. In railroad practice the proportion is greater. This is because when a train in motion is suddenly stopped, the upper part of the body is apt to be hurled with great force against the side of car or other immovable body, and a person falling from a train instinctively throws his hands forward to protect himself; and when exposed in a wreck, he is caught by the hands and dragged with considerable force. The joint has but little power of resistance to any of the causes mentioned. 2. Because an unrecognized, imaginary or maltreated dislocation may subject the company to great expense and us to censure. That the dislocation is liable to escape recognition will appear from the fact that in a total of seven cases occurring on the Wabash, St. Louis & Pacific Railway treated by us, two had been mistaken for fractures—the first, that of a brakeman who had fallen from a car while the car was in motion and received an injury of his right shoulder. A physician had splinted and bandaged the arm for supposed fracture of the surgical neck of the humerus. When brought to Decatur, the next day after the accident, his shoulder was so painful that he begged me not to change the dressings. And, as I did not suspect the character of the injury, no attempt was made to remove them until they were so loose as to demand it. So soon as the shoulder was exposed a dislocation was apparent, and was easily reduced. The other was a brakeman, whose shoulder was dislocated in a wreck a few miles from Decatur. He was attended by two or more physicians in the neighborhood, who supposed that he had fracture of the acromion. Nine days after the occurrence of the accident my son, Dr. Chenoweth, was directed by the attorney of the road to visit the man and give my opinion of the injury and of its probable permanence. Discovering a dislocation—instead of a fracture—he immediately reduced it, to the great relief of the man, and, as estimated by the attorney, to the saving of more than a thousand of dollars to the company.

An instance of an imaginary dislocation occurred in connection with our railway practice which may be profitably recalled. A girl about fifteen years old, in company with a brother younger than herself, attempted to cross the railroad in a two-horse wagon at a street crossing in Decatur, in front of a moving train, when the horses suddenly turned to one side and threw the wagon against a coach. The girl received an injury of the shoulder, which was thought by a physician, who saw her half an hour after the accident, to be a dislocation of the humerus. Council having been called by the family, the attorney of the road, who was on the train at the time of the occurrence, requested me to be present at the consultation. One of the physicians pointed to the swollen joint, apparent depression below the acromion, the prominent head of the humerus occupying a position interior to the glenoid cavity, as indicating dislocation. The head of the bone certainly was singularly prominent and apparently internal to its normal position, but there was freedom of motion, after the arm had been gently handled, and the other shoulder presented the same unusual characteristics. All of us were convinced that there was neither dislocation nor fracture.

Dislocation of the humerus is so frequently associated with injury to the muscles, nerves, bones; blood-vessels or ligaments, that we expect shrinking of the muscles, stiffness of the joint, pain and imperfect use to result, but neglect on our part will not justify their presence.

In dislocations of the humerus we usually find: 1. A depression under the acromion. 2. The elbow carried outwards. 3. That the hand of the affected side can not be placed on the opposite shoulder at the same time that the elbow touches the body. 4. If the head of the bone can be felt it will move with the shaft. 5. The arm is lengthened in subglenoid and subcoracoid; shortened in subclavicular and subspinous dislocations. 6. Pressure on the axillary plexvs will cause numbness of the arm, and, if the elbow is forced toward the body, pain.

Professor Roeser (1857) suggested that difficulty in reduction depends on ability to ascertain the direction and position of the head of the bone in relation to the rent in the capsule, and not in muscular contraction. Muscular contraction changes the position given to the bone by the force applied, and it is, therefore, necessary to restore it to the first position before any attempt is made at reduction. Many persons in this country hold similar views, while Hamilton and others think that "muscles constitute the sole or the main obstacle to the return of the bone to its socket," and refer to "the extensive laceration which the capsule generally suffers, and to the constrained and almost uniform position of the arm" as proof. Muscular contraction is apparent, but when a dislocation has been produced in the dead subject and the muscles attached to the joint have been severed, it has been found that the difficulty of reduction was in proportion to the size of the rent in the capsule, and to the relation of the head of the bone to the position it had at the time of the dislocation. To cause the humerus to assume the position it had at the time the accident occurred, in the living, we will be greatly assisted by only moving the arm only in that direction in which it can be done without giving pain. In every dislocation some one or more muscles are put on the stretch immediately, and others become tense in a short time, by contracting, so that we are liable to tax an already extended muscle by traction in any direction. But as the deltoid and supra-spinatus are more certainly put on the stretch than any others, we may usually elevate the arm without giving pain, the act of lifting the arm relaxing the muscles. But every muscle concerned in holding the arm in its first position will be relieved of more or less painful contraction, the pain caused by traction being a protest against further extension in that direction. The muscular contraction which fastens the bone in its unnatural position is an unerring guide to its release.

The patient should be placed on his back on the floor, the surgeon taking a position outside of the dislocated humerus, grasping the arm with his hand and placing the other on the head bone, if it can be felt; the arm should be gently lifted from the body, at the same time traction should be made in the direction of the long axis of the humerus. It often happens that the bone will slip into its socket before it has been raised to a right angle with the body; but at times it may be carried almost perpendicular, or the axis of the bone be parallel with the body, without reduction. After it has been elevated as high as possible without causing pain, an attempt should be made to bring the arm forward and downwards in the direction of the opposite groin. If the head of the bone has been caught on the edge of the glenoid cavity, the scapula will usually recede and the reduction occur immediately, the mobility of the scapula favoring the process. If the bone does not slip into its socket, it should be held steadily in its position and traction be continued. If not yet successful, the arm should be carried backward, or both backwards and downwards. No force is required from first taking hold of the arm until reduction is accomplished. We should watch for every indication of pain, so that we may desist from attempts in the direction causing it; always endeavoring to make traction, to elevate, rotate or otherwise move the arm in that direction where there is least opposition from muscular contraction.

Five minutes is a long time to consume in effecting a reduction; but if an hour or longer is demanded, it should be cheerfully given rather than by impatience or carelessness to cause pain, which is evidence of the application of force in an uncalled for direction.—*Weekly Medical Review.*

The Yeast Theory of Diabetes.

The minuteness with which Smollett traced "The Adventures of an Atom" may be said to have been quite outdone by ætiological research of late years. In the one case, that easy-going and accommodating nag, the imagination, needing neither whip nor spur, had only to be patted on the neck, and a consistent yarn was evolved for the reader's delectation. In the other, facts, or what with more or less of reserve must be taken for facts, have had to be unearthed at great pains, submitted to all conceivable tests of their genuineness, and fitted together in such a manner as not to do violence to their natural relations. It is getting to be more and more uncommon for facts possessed of any special import to be stumbled upon, or even to be gathered in casually during a quest for those of other bearings; nuggets are not now picked up by the wayside, but hard quartz has to be crushed and forced, by dint of all the laborious processes known to man, to give up whatever may lie buried within it.

All this is only another way of saying that what we go on terming discoveries are constantly putting on more and more of the real nature of inventions. While the pursuit is thus made inexpressibly more tedious and wearisome, the advance made in the long run is more substantial, and greater satisfaction, if less glory, rewards the worker. The contrast is sharp between this state of things and that which obtained in Sydenham's time, for instance, when plausibility was the only passport needed for the doctrines of great men, and when those given out by men of less renown had but to run the gauntlet of criticism from rival theorists—a criticism that savored rather of a malicious animus than of any fair-minded devotion to the elucidation of nature.

But, notwithstanding the unquestioned fact that the great burden of modern progress is borne by the investigators, it happens now and then that they are found to have accumulated a mass of material that they have been unable to put to its full use, and some strong man with a gift for synthesis is needed to clear up the disorder. It seems as if the next great move in this direction would have to deal with the germ theory of disease; but the time has not yet come for this finishing touch to the natural history of the cryptogams. Whoever is to so conduct the game as to avoid a stalemate must have all the pieces well in view, and there must be no lingering doubt attaching to the rank or the relative position of any one of them.

If the yeast fungus is not then found to be a pawn masquerading in the semblance of a queen, abundant credit will fall to Dr. Eklund, whose ingenious exposition of the saccharomyces theory of diabetes is given in this number of the journal. Not the least taking feature of the theory is the explanation it offers of the acetonæmia of diabetes, assuming, of course, that diabetic coma really is due to acetonæmia. There are few diseases that are more puzzling than diabetes, whether in their pathogeny or in their clinical history, and whoever makes even a rational suggestion toward the solution of its mysteries deserves some mitigation of the stern hold by which modern science binds her devotees down to the study of pure facts.—*N. Y. Med. Jour.*

The Hygiene of Dogdays.

THE oppressive heat of this season is alluded to by Virgil, who ascribes to the baneful influence of Sirius corporal languishment and disease.

How to keep strong and well when the thermometer is 90° in the shade and there is not a breeze, and the atmosphere is full of moisture; when the appetite flags and digestion languishes, and toil is irksome, is the perplexing question.

By common consent for the inhabitants of cities, for all men of business and all professional men, this is the holiday season, and nothing in the economy of nature is more appropriate than that citizens should fly to mountainous regions of the country, or the seaside for coolness, invigorating air, rest, and recreation during this trying period, when the air of our crowded cities is rank with decomposition and corruption.

Not to dwell on the peril to the cerebro-spinal system of excessive heat; and it is a matter of frequent observation that exhaustion of nervous energy, phlegmasias and even death are thereby produced—not to dwell on the relaxation of the muscular system, of the perspiratory system, and the venous congestions which all experience to a greater or less degree, the digestive organs are undoubtedly the most exposed to danger. Over-eating, and the eating of improper food are sins of dogdays as of all other periods. A considerable portion of the human race have not self-control when impelled by appetite, and never learn self-control by the dearest bought experience. Green fruits and green vegetables are in the market. There is little desire for ordinary food, but these new products of the soil, though generally immature, are palatable and appetizing. The weakened stomach is oppressed by a burden which it can not digest, and *embarras gastrique*, enteritis, or cholera morbus results. Happy the summer gourmand if, warned by a diarrhœa, he practices abstinence in time to escape worse evils.

So patent is it to every physician that a large part of the physical ailments of dogdays are due to indulgence in green fruit and vegetables, that all citizens—those that stay at home to swelter during the hot weather, and those that frequent the watering-places—can not be too much cautioned as to the danger of much indulgence in the good things with which their tables, at this season of the year, are loaded. If, as at a medical banquet we once attended, the green corn could be labeled *cholera* the green peas *colic*, and the lobster salad, *despair of a jaded stomach*, only the simple truth would be told, however much it might seem like a stupendous joke. If the appetite be poor, the powers of the stomach are enfeebled, and should not be taxed. Food of an easily digestible character should be eaten, such as stale bread, oatmeal, pure milk (if obtainable), rice, a little fresh fish or *tenderloin*, broiled, not fried, chicken, veal, or mutton tea, with a little soda biscuit, cooked ripe fruits in moderation. Heavy boiled dinners (fit only for the "tough stomachs of reapers"), rich puddings and pastries, salads, green legumes, fried meats, and animal food generally, should be either not indulged in at all, or eaten very sparingly.

Frequent ablutions form an important part of the hygiene of warm weather. The whole body should be bathed with lukewarm water twice daily, and if there be sufficient constitutional vigor to stand a cold bath, this will prove very invigorating.

Will it do to take a cold plunge while perspiring? This question has been answered both negatively and affirmatively. The common impression has been that a bath taken during active perspiration is likely to be injurious; therefore a hygienic rule has been established forbidding cold bathing at such times. This is a rule, however, which is transgressed by laboring men and farmers with impunity, and it is well known that in the European hydrotherapie establishments it is advised as preparative for the cold douche that the patient should take vigorous muscular exercise before the douche, in order to induce sweating; and it is at the period of greatest muscular activity that the cold plunge or douche is taken. It is maintained that the greater the difference between the temperature of the body before the douche and that of the water the more active the reaction will be. It is perhaps safer to follow the traditional opinion; at all events, the cold douche should be short. There is no question that the free external use of cold water is a powerful promoter of tone, and that many a vigorous literary man and accountant owes his robustness during the summer months to regular habits of cold bathing. Sea-bathing is especially recommended to those who are in a situation to enjoy this uncomparable hygienic luxury.

The air in dwelling-houses should be made as wholesome as possible, and all ill-smelling nuisances in the vicinity should be speedily abolished. Foul smells may not contain disease-germs, but they certainly offend the respiratory and digestive organs. The windows of sleeping apartments should be kept constantly open.

The daily tasks should be lightened in correspondence with the diminished capacity for hard work; opportunities for recreation should be improved, and sleep should be abundant. An hour of sleep after dinner is invaluable to most hard working men.

Such are some of the hygienic rules applicable to dog-days; they will perhaps be less heeded by busy physicians at watering places, to whom, as to farmers, this is a harvest season, than by intelligent citizens generally.

Concerning the Value of Examinations.

Those who read the very interesting paper by Surgeon Shufeldt in the present issue will be impressed with the truth of much that he says regarding the real value of examinations as tests of knowledge actually possessed. These examinations are, as Huxley very truly remarks, the necessary evils of our existing system of education. But that they utterly fail in very many instances of accomplishing their real purpose goes without the saying. The failure to pass is often due to absolute ignorance on the part of the candidate. When there is no question on this point the examination serves its real purpose. Too often, however, the trouble is with an examining board which adopts too arbitrary a standard, or imposes too exacting conditions. There is great need of drawing the dividing line somewhere between these extremes.

It has often been said with much truth that the prize men in college do not, as a rule, make much of a show in after-life. They belong to a class now becoming quite numerous, who study to pass an examination rather than to gain knowledge. "They do pass, and they don't know." On the other hand, the scholar at the foot of his class, who scrapes through by so-called blind luck, often surprises every one by his ultimate successes. But ordinary examiners never appear to dream of such possibilities, nor are any practical efforts made to ascertain the real extent of that groundwork of knowledge upon which future success in any calling must depend. An approach is made in that direction in the searching character of the Army and Navy examinations, but that is all. It may, and doubtless does, serve to keep out incompetent men, but it can not always bring to the front and develop those whose best work is ahead of them. That examining board would certainly be a wise one which could, under all circumstances, be able to separate the chaff from the wheat. But while this may be considered impossible it must nevertheless be acknowledged that there is great room for reform regarding the accepted method of examination even in the Army and Navy. There should certainly be an attempt to approach a more practical standard, an endeavor to bring out the qualifications which shall best meet the real requirements of every day life in camp, on the field, or in hospital. At present there appears to be more danger of shutting out many good men who would be destined to ornament the corps than of admitting ignoramuses would be liable to be dropped at their second examination.

The second examination is right enough in its place, but its real aim should be to measure the qualification of the candidate according to the bent of his future usefulness to the service. Proficiency in one line of study should offset a lack of it in another. Thus each one could be placed properly to bring out his best talents and be encouraged to pursue a line of study before and after his second examination best suited to his taste and capabilities.

Even Surgeon Bill himself, if subjected to an examination to-day, might pass better in chemistry than either in anatomy or surgery. And yet it would have been quite a mistake to have rejected him on that account. On the other hand, we have not heard that the late Geo. A. Otis, whose masterly "Surgical History of the War of the Rebellion" is a monument of talent and industry, was much of a chemist.—*Med. Record.*

Leprosy and Beri-Beri.

Dr. F. H. Enders writes an interesting letter from the Sandwich Islands to the *Louisville Medical News*, June 26, 1883, in the course of which he says:

The history of leprosy in these islands is very obscure. As far back as 1820, the time of the arrival of the first missionaries, we are told of the existence of a disease similar in nature to the leprosy of the present day; this was known among them as mai alii, or the disease of the chiefs. But among the first conspicous cases after this time was that of a Chinaman, whereat the missionaries adopted the name of mai-pake, or Chinese sickness. Since then it has been known among the people by this name only, and from this fact it was supposed the disease originated among or was brought here by the Chinese, which I am not greatly inclined to believe; indeed, that the disease has existed among them from time immemorial seems to me the clearest inference to be drawn. What is leprosy? How often this question has been asked, and yet how unsatisfactory the solution. A few scientific men contend it is a form of syphilis; others, that it is a disease sui generis, greatly dependent on the habits and character of food; others, that it is of malarial origin, as stated by Sir Erasmus Wilson and my friend, Prof. L. P. Yandell; others, again, who are confident that it is caused by the inoculation of a specific bacteria. How, then, are we to reconcile these widely conflicting theories as to its relationship to syphilis?

Syphilis arises from the same character of sore, pursues precisely the same course, manifests itself in three different stages, here as elsewhere. If, then, it be akin to syphilis, it must be of some later form than the tertiary; then, if such be the case, why should this later form be inoculable, when I believe it is an accepted fact among syphilographers that the tertiary form is not inoculable. As to it malarial origin, the fact of the great immunity suffered from this poison on these islands would rather preclude such an idea. If I were asked to describe a case of leprosy before reaching its last and most severe form, I would refer back to some reports made by Mitchell, Morehouse, and Keen, who had such large opportunities in the hospitals established during our civil war for diseases and injuries of the nervous system. The conditions they found to occur in the parts below the seat of injury where atrophy of muscles and various subacute inflammatory states indicated by tumefactions and congestions, edema, thickening of the cuticle, glassiness of the skin, cracks and fissures in it, eczema, curved and talon-like nails, retraction of the skin of the ungual phalanx, and exposure of the matrix, painful swelling of joints, and altered or arrested secretions. In addition to these, anesthesia, a bluish discoloration over the seat of anesthesia, and tendency to ectropion. Here we have a tolerably fair description of a case of leprosy. As it progresses, the anesthesia extends from its seat of beginning in the extremities, tumefaction increases, ulceration sets in, the flexor muscles strongly contract, the lobes of the ears and alæ of the nose are greatly hypertrophied, absorption of the bones of the hands and feet goes on, until some intercurrent disease or organic complication relieves the poor wretch and sends him to his long home. They are very liable to epidemics of phlegmonous erysipelas, the sequelæ being inflammation and suppuration of some of the lymphatics. I have operated on as high as fifty-four in one day from this cause, giving great relief to the poor victims. There are now at the segregation about 700 inmates; the government has recently been very active in collecting and sending them to the hospital, until, in my district of about 6,000 people, we have not more than five lepers at large. But one white man has been condemned as a leper from this island since my long stay here, and he lived among them as one of them, eating from the same calabash, smoking the same pipe, etc. They are well cared for, having comfortable homes and plenty of food, and when once installed are loath to leave.

The description of a case, as given before, upholds very strongly the theory advanced by Prof. T. G. Richardson, of New Orleans, as being a disease of the trophic nerves: and the treatment by nitrate of silver seems to sustain it, as great good has resulted when it could be tried with any degree of satisfaction, the great trouble being their diet, which is composed largely of salt fish, this rendering the nitrate inert by converting it into the insoluble chloride. Salicylate of soda is the great remedy of the day; the future will tell us more of its effects. I learn Professor Gross has recently had a case from these islands. I should like very much to be allowed to forward you a sample case for your observation and study. We have another form of disease here that is doubtless a matter of curiosity to your readers, and that is beri-beri. I have seen about sixty cases on these islands, confined entirely to recent importations of Chinese, not one having been here over two years. This I attribute to the fact of the older residents adapting themselves to the diet and customs of the natives, dispensing with the excessively greasy and strong meats and fish that are brought from China, and eating poi, rice, meal, etc.

Dr. Simmons, of Yokohama, from whom I have recently received a letter, refers in strong terms to malaria as a cause of this disease, yet Chinamen arrive here apparently in good health, and so remain for perhaps one or two years, when they are suddenly taken with the pain in the knee and flexor muscles indicative of the approach of beri-beri. It can not be malaria is the cause, for there is no country in the world which has suffered greater immunity from malarial diseases than this, unless some one eventually proves syphilis to be malarial. The first indication of the disease resembles very much that of progressive locomotor ataxia, the unsteadiness of gait, inability to stand with feet close together and eyes closed, the same difficulty in walking. But the phenomena which are generally to be found are summed up by Everard: debility, cold extremities, palpitation, dyspnœa on exertion, frequent, small and quick pulse, the bruit occasionally heard in the neck, scanty urine, torpid bowels, deadly pallor of the tongue, all indicating a condition of anemia. Treatment has but little effect, a large percentage of the cases being fatal.—*Reporter.*

Relations of the Tubercle Bacillus to Phthisis.

BY C. THEODORE WILLIAMS, M.A., M.D.,
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LECTURE I.

GENTLEMEN:—More than a year has elapsed since Koch's important discovery of the tubercle bacillus, and this period has been occupied by observers of various countries in testing his conclusions in their different aspects, clinical and pathological. We must bear in mind that the great problem which Koch set himself to solve was whether the disease called phthisis was due to the presence in the system, and to its rapid multiplication, of a definite organism, and to no other cause whatever. Villemin, Marcet, Simon, Andrew, Clark and others, finding that by inoculating rodents with tubercular matter they produced tuberculosis in these animals, concluded that phthisis was a specific disease, capable of inoculation, and could only be generated by tubercle. Later on Drs. Sanderson and Wilson Fox succeeded in inducing tuberculosis in guinea-pigs, not only by inoculation with phthisical sputum and tuberculous products, but also with pus, putrid muscle, lardaceous liver and a number of non-tuberculous materials, and even by inserting setons under the skin, thus overthrowing, for a time at any rate, the doctrine of the specific character of tubercle production. An important point to bear in mind with regard to these last mentioned experiments is that the experimenters never succeeded in producing tubercle traumatically if the influence of the external air was entirely withdrawn, or if the setons were steeped in carbolic acid. These experiments were repeated by Drs. Waldenburg, Cohnheim and Fraenkel, who at first apparently arrived at corresponding results, but afterwards were led to change their opinion, as will be seen later on. Schottelins of Wurzburg produced granular pulmonary tuberculosis in dogs, by making them respire air charged with pulverized phthisical sputum, but he produced similar results with air charged with the expectoration of bronchitis, with Limburg cheese and with vermilion. Klebs, firmly convinced of the specific nature of tubercle, had described an actively moving organism as its cause. Schuller and Toussaint had pictured a spherical micrococcus in connexion with the disease. Anfrecht had found more than one form of organism, and thus paved the way for the next step, which was the discovery of Koch. Koch having, by means of certain aniline dyes, detected the bacillus tuberculosis, succeeded, through a series of ingenious cultivations, in procuring it pure and simple. He first took tubercle and, after washing it with a solution of corrosive sublimate, removed the outer layers and separated a portion into which he might fairly expect that no bacteria of putrefaction had penetrated. This he spread over a nutrient soil consisting of the blood plasma of the ox, which had been previously sterilised by boiling in a test tube. The coagulum of this, with the tubercle added, was introduced into a test tube with a cotton-wool plug and kept in an oven at a temperature of 37° to 38° C. (98·6° to 100·4° F.) Nothing appeared during the period of incubation of the ordinary bacteria of putrefaction, but at the end of ten days there were seen on the dry surface of the coagulum a number of very small points or dry-looking scales, surrounding the pieces of tubercle spread out in circuits more or less wide according to the distribution of the tubercle fragments. After a few weeks' more exposure these crusts ceased to enlarge, and were then transferred to a fresh test tube containing blood plasma similarly prepared. After another interval of ten days the scales appeared, became confluent, covering more or less of the surface of the coagulum as the seed was scattered, and so from test tube to test tube the experiment was carried out under the most rigorous antiseptic conditions as many as a dozen times and for a period extending over 150 days. With the results of these culture experiments 200 rabbits and guinea pigs were inoculated, the places selected being under the skin, the peritoneal cavity, or the anterior chamber of the eye. With one exception, all these animals acquired tuberculosis of the lungs, liver, spleen and other organs, the tubercles having the structure of true tubercle and including giant cells, which latter were found to contain bacilli. Such being Koch's results, how are we to account for the production of tubercle by non-specific inoculation, such as Schottelins and others performed? Klebs suggested that they might be ascribed to infection, as the experiments were performed in laboratories at Berlin in the presence either of animals already tuberculous, or where tuberculous materials might remain from previous investigations. Cohnheim and Fraenkel, to test this, repeated their experiments with non-tuberculous materials on similar rodents, Cohnheim in the laboratories of Kiel and Breslau, and Fraenkel in his own home, and with absolutely negative results in both cases, thus demonstrating that the septic atmosphere, and not the simple irritation, was the cause of the tuberculosis. Cohnheim held, previous to Koch's discovery, that the best test of tubercle was its inoculability, and that it was conveyed by specific organisms to the lungs, and affected thus both pleura and bronchial glands. Mr. Watson Cheyne confirms Klebs' suspicions by a series of recent experiments on rodents, which he states he performed under the best hygienic conditions, with complete isolation of the animals from each other, and thorough disinfection by heat of the instruments used. In six cases setons of various kinds were introduced either subcutaneously or into the anterior chamber of the eye. In ten vaccine lymph was used, in three pyæmic pus was injected either into the eye or under the skin, or into the abdomen; in six, various materials, such as cork, hardened tubercle which had been soaked for three months in alcohol, or worsted, were introduced into the abdominal cavity. In none of these rodents did tuberculosis result. Mr. Cheyne also made experiments with cultivations of bacilli obtained from Dr. Koch. He inoculated twelve animals with these organisms, chiefly into the anterior chamber of the eye; all of them became tuberculous, and more rapidly than after the inoculation with tubercular tissue. The tubercle obtained from these cases was again inoculated and shown to be infective, causing tuberculosis in other animals and containing the tubercle bacilli, which were found to be most numerous when obtained from bovine tuberculosis, and least so when taken from human tubercle. It appears impossible to resist the force of these demonstrations, and we are compelled to admit that there is a specific element in tubercle, the presence or absence of which determines the success or failure of the inoculation. This element is apparently the tubercle baccillus, but we must not exclude the possibility of other organisms playing a part in the process of tuberculosis. The publication of Koch's paper was followed by a search after the bacillus by a large number of observers in various countries. The sputum of phthisis was tried for the bacillus by Balmer, Fraenkel, D'Espines, Heron, Heneage Gibbes, West, Dreschfeld, Whipham and myself among others, and our conclusions confirmed those of Koch as to its almost invariable presence in phthisis and its absence from the sputum of other chest diseases. To the particulars of my own researches I will allude more fully presently. The baccilus has also been detected in the purulent effusion of a knee-joint, in tuberculous ulcers of the intestine, and in tuberculous kidney, and it is stated to have been discovered in the lymphatics of the lung, and doubtless in time it will be discovered in other organs.

Few institutions could be more interested in this discovery than this hospital, which is for the most part devoted to the investigation and treatment of consumption, and in which any aids to diagnosis and prevention are heartily welcomed. The subject was soon taken up, and our labors were directed towards testing (1) the sputum, (2) the blood of the patients, and (3) the air of the wards. With regard to tests Koch's original plan did not give us very successful results; Ehrlich's answered better, and with Weigert's additions seems excellent, but Heneage Gibbes' was early adopted on account of its simplicity and speed, and a fresh mass of cases were thus examined, the bacilli being stained with magenta-aniline, and the ground substance with chrysoidin or methylene blue. Lately, however, I have adopted a modification somewhat resembling Rindfleisch and Chill's, which still further simplifies and shortens the process. The cover-glass with the dried sputum thereon is floated in a few drops of magenta aniline in a watch-glass, and heated over a flame till vapor is seen to rise from the surface. The watch-glass is then removed and allowed to cool for two or three minutes, the cover-glass is afterwards treated successively with nitric acid (1 in 4), with distilled water and a weak solution of alcohol. It is dried and mounted in Canada balsam, the whole process not exceeding eight minutes. When, however, I am doubtful of a result, I test a second specimen, this time allowing the cover-glass to remain in magenta-aniline for a long period—say, of twenty-four hours—and subsequently compare the two; but I generally find that the first method is sufficiently accurate. This process has answered well for detecting the bacillus tuberculosis quickly in sputum: but Gibbes' solution does sometimes color putrefactive bacilli, and if the second solution be not used, we have to be careful, though the form and size of these latter differ entirely from those of the tubercle bacilli. Another difficulty is that the red staining of such preparation often fades, owing, Dr. Gibbes tells me, to the fact of heat being used; but I have also noted the fading in several slides where heat was not used. Dr. Gibbes' new process has the advantage of getting rid of the nitric acid, of rapidly staining the tubercle bacilli, the putrefactive bacilli, and various micrococci blue, thus demonstrating most of the organisms present in the sputum of phthisis. Dr. Gibbes showed me the process, and kindly furnished me with some of the solution. He has noted one form of micrococcus frequently present in addition to the tubercle bacillus. I have not tried this process largely; but as yet it has not proved as successful in my hands as the former ones, partly owing to the density of the fluid, and partly to some of the tubercle bacilli being colored a sort of neutral tint instead of red. The Weigert-Ehrlich solution (saturated watery solution of aniline 100 cubic centimeters, saturated alcoholic solution of fuchsin or magenta ten cubic centimeters) is an excellent stain for sputum sections. I have sometimes substituted it for Gibbes' because of its less intense color and greater fluidity, and obtained very good results. Under the microscope you will find sputum of consumptive patients containing bacilli stained by all these various processes, as well as some admirable sections of tubercle of the lungs and trachea, and cavity scrapings tinted by the Weigert-Ehrlich process, kindly exhibited by our pathologist, Dr. Percy Kidd. (Specimens exhibited.) One of these last shows the massing of the bacilli on the ulcerated mucous surface of the trachea in a remarkable manner. Some account of the general results of the examination of the sputum were given in *The Lancet* in February; but since that date we have added considerably to our numbers, which amount now to about 200, many of which have been made the subject of separate clinical study, as will be seen later on. Twenty-three patients were examples of lung affections other than phthisis—viz., asthma, emphysema, bronchitis, pleurisy, chronic pneumonia, pulmonary congestion, bronchiectasis and empyema. In no one instance of these did the sputum contain bacilli. On the other hand, of the 200 cases of phthisis, which included acute and chronic forms in all stages of the disease, in all but three, bacilli were found. The blood of several acute cases of phthisis was next examined, but here we entirely failed to detect bacilli, though, judging by the height of the fever and the evident infection of the system, we were quite prepared to find them.

The next point of investigation was the air of the hospital. As a convenient way of testing this, I selected one of the ventilation shafts in which the flues of several wards converge, and in which extraction takes place at the rate of 300 to 400 feet a minute. In this current I suspended glass plates smeared with glycerine for a period of five days. The plates were then washed with distilled water, the fluid mixed with a little mucilage and evaporated down to half, and the residue tested for bacilli, which were found in fair abundance. I may mention that the wards from which this air came contained a small proportion of chest cases other than phthisis, though the great majority of the patients were phthisical. As a further experiment, by Dr. Green's suggestion, I had a number of non-phthisical patients placed in a ward recently cleaned out and whitewashed, and I suspended similar glass plates in the extracting flues, and here there were no bacilli found. Another ward was filled with consumptive patients, some in an advanced stage, and the air extracted from this ward similarly tested. A slide containing dust from this ward flue is placed under one of the microscopes, and you will see a few bacilli in the field, not in abundance or of great length, as we see in the sputum, but few and rather short, but still definite. This plate was exposed for fourteen days in the flue, and is conclusive in its results. Mr. Percez, one of the clinical assistants, at my request, examined the blood expectorated in two cases of hæmoptysis under the care of Dr. Tatham, and in each found bacilli.—*Lancet.*

Irregular Work Worse than Overwork.

At the present time, when we hear so much of the evil consequences of what is rather loosely termed "overwork," the following remarks of the *British Medical Journal*, July 14, 1883, seem quite *apropos:* "'Overwork,' properly so called, is not so likely to occur, or if it occur to do mischief, as irregular or disorderly activity. If there be not sufficient time for recuperation in the course of work, exhaustion must take place. If the work done be of such a nature as to put an undue strain on any one faculty, harm may be done, although the brain as a whole may not be severely taxed. If the supply of brain food be insufficient to enable the recuperative faculty to compensate by food for consumption in use, there must be exhaustion. If work be exacted when any indication of exhaustion is present, it is impossible that injury shall not be inflicted. It follows that educators have especial need of care to avoid engaging the brains of their pupils in work for more than very short periods, and to provide intervals during which there may be rest of the centers specially taxed. Much may be done by changing the kind of work frequently. We are of opinion that no growing child should be kept longer than half or at most three quarters of an hour at one task, or even the same description of work. Again, the great centers of relation should not be overtaxed. Vision, hearing, the speech center, and the center specially concerned with written language, whether in writing or reading, should not be wearied. Brain weariness is the first indication of exhaustion. The faculty of 'attention' is perhaps one of the most easily vulnerable of all the parts or properties of brain-function. It is the faculty which most readily becomes permanently enfeebled, and when weakened entails most trouble in adult life. In children it is difficult to catch and fix the attention. No effort should be spared to secure this fixity of thought; but in order to avoid weakening the power of 'thinking'—as distinguished from 'thought-drifting,'—the teacher should not strive, or desire, to hold the attention by any effort on *his* part longer than it is voluntarily given by the child. The slightest indication of exhaustion should at once be met by a change of task. If these hints, general as they are, can be reduced to practice, we think there is little fear of 'overwork' or harm from brain activity. Desultory and insufficient work is more to be feared by far than 'overwork,' because the brain, like every other part of the organism, grows as it feeds, and it can only feed as it works."

Bathers' Cramp.

Some recent bathing fatalities have again drawn attention to the important subject of bathers' cramp. If the nature and causes of this dangerous affection were more generally known, it is probable that many deaths from drowning in the bathing season might be prevented. Cramp is a painful and tonic muscular spasm. It may occur in any part of the body, but it is especially apt to occur in the lower extremities, and, in its milder forms, it is limited to a single muscle. Pain is severe, and the contracted muscles are hard and exquisitely tender. In a few minutes the spasm and pain cease, leaving a local sensation of fatigue and soreness. When cramp affects only one extremity, no swimmer or bather, endowed with average presence of mind, need drown; but when cramp seizes the whole of the voluntary muscular system, as it probably does in the worst cases, nothing, in the absence of prompt and efficient extraneous assistance, can save the individual from drowning. Although the intimate nature of muscular cramps, and the precise mode in which they are established, are still unknown, experience has furnished us with sufficient data on the subject to enable us to recognize the chief conditions of their causation. These conditions are: a peculiar individual susceptibility or idiosyncrasy; the shock of cold applied to the general surface of the body; prolonged muscular exertion; and forcible and sudden muscular exertion, especially in the direction of the extension of the extremities. There can be no doubt about a liability to muscular cramp being an individual peculiarity. The disorder is especially apt to arise in persons of irritable temperament. While cramp has been met with in all ages, sexes, temperaments, and climates, it has been observed that it occurs far more frequently in warm climates than in cold, and chiefly in the hottest of warm climates, and that persons of middle age suffer most from the affection, and men more so than women, and the robust and vigorous more so than the weakly. Neither can there be any doubt that the shock of cold applied to the surface of the body, especially when the body is unduly heated, is the commonest determining cause of the worst and most extensive forms of bathers' cramp. On this fact is founded the common prejudice against bathing when the body is much heated. Many fatal cases have illustrated this point. Only a short time ago, a robust soldier, who was an expert swimmer, rowed in a boat, upon a sultry evening, to a deep pool; here, with his body glowing from muscular exertion, he plunged into the water with the intention of taking a refreshing bath, when he was immediately seized with general muscular cramp, so that the poor fellow was at once drowned. That mere prolongation of muscular exertion, as in continued swimming, and forcible and sudden muscular exertion, particularly in the extension of the extremities, as in swimming with very vigorous and rapid strokes, are, respectively, efficient and frequent determining causes of cramp, familiar experiences to every swimmer. These muscular conditions, however, usually give rise only to the slighter and more localized forms of cramp. Serious cramp is a peril which menaces most persons with highly developed muscles. Its most powerful and most avoidable cause is the sudden immersion of the body, when its surface is highly heated, in water of a relatively low temperature.—*British Medical Journal.*

Sea-Sickness.

BY R. VACY ASH, M. B. ABER., L. R. C. P. LOND.

In this paper Dr. Ash observes: "I have an idea that the sympathetic nervous system is the culprit, for the following reasons:

"1. Flushing of the face is a common sign of the approach of nausea, and we all know that irritation of that nerve will cause this, as well as an extra secretion in a gland.

"There is an increase in the quantity of fluid ejected from the stomach after it has lain there for a short time. In my own case I frequently noticed, and I subsequently verified it in many others, that, if I took half a cup of beef-tea, and lay in the horizontal position for a time, so as to avoid vomiting, when I did again vomit, when the exhausted muscles had regained their tone and were ready for another attack, the quantity ejected was greatly in excess of that taken in. For instance, if four ounces had been drank, about twenty ounces would be ejected, of a sour beef-tea liquid. Now, whence did the surplus come? That it was gastric juice, may, I think, be taken for granted; for, although I had not the means of chemically examining its component parts, it certainly partook outwardly of the character of that juice, inasmuch as it would dissolve meat and had an acid reaction, and it did not contain any special features that would lead to the supposition that it came from other gastric organs.

"Granting then that it was gastric juice, it follows that secretion, induced by the presence of the beef-tea, was in action, while the balancing power of absorption was held in abeyance. Now, if we follow this out we shall see that the sympathetic nerve-power was acting regularly; for secretion of gastric juice is governed in the follicles by the latter, while absorption of fluids direct by the veins which are governed by the former is held in abeyance, or, in other words, paralyzed. I do not say that it is so, I only throw these facts out for others to corroborate, or not, as the case may be. Whence could the increase in the quantity of fluid have come? It must have been taken in some way from the blood; and what so ready to do so as the gastric follicles, stimulated into action by the presence of the small quantity of beef-tea?

"Now, as to remedies. If my observations be correct, any drug or remedy acting on the sympathetic nervous system would cure this tiresome complaint; ice to the spine may so act, as well as the remedies mentioned by Mr. Kendall, in a more direct way. The teaspoonful of Worcester sauce, which I have found useful, may owe its efficacy to the hot condiments contained therein, and I imagine it to be possible that they act through the sympathetic in the coats of the stomach. I know that the majority of the quack remedies for sea-sickness contain a mixture of nearly all the carminatives and condiments under the sun, with the hope that one out of the lot will hit, and they do hit, or rather temporarily relieve, as cayenne pepper and Worcester sauce will do. There is one mode of applying remedies that I should like to see tried by some one who would honestly take the matter in hand, and that is the introduction of certain remedies by subcutaneous injection, for it necessarily follows that, if my idea be correct and absorption be held in abeyance in the stomach, it is of little use to pour any medicine into that viscus when it is impossible to be taken up by the blood."—*British Medical Journal.*

The Influence of Calomel on Digestion.

Dr. Vassilieff has found, from experiment, that the presence of calomel, at least up to the amount of five grammes, in the alimentary canal, does not interfere with the gastric juice, nor affect the triple influence of the pancreatic fluid on albumen, fat, and starch; on mixing the latter fluid with fibrin and calomel, the formation of certain products, indol, etc., always appearing as a result of prolonged digestion under normal circumstances, is prevented. The gases generated in the process of pancreatic digestion contain none of the usual products of fermentation and decomposition when calomel is present; sulphuretted hydrogen and pure hydrogen are absent, carbonic acid is diminished to from two to ten per cent.; whilst, under natural circumstances, from fourteen to fifty-four per cent. is found in the gases evolved by the action of the pancreatic fluid. In fact, calomel prevents all other changes in nutritious substances, save those produced entirely by the digestive secretions, decomposition and retrogressive processes in albumens being entirely checked. Calomel also prevents butyric acid fermentation, as Vassilieff found by experiments on cheese. The action of calomel readily explains the cause of the green color of feces passed by patients to whom that drug has been administered. Hoppe-Seyler rightly attributed this coloration to the presence of unaltered bile. Now, under normal conditions, bilirubin and biliverdin are changed, by a process of decomposition, into hydrobilirubin, and thus become no longer recognizable in the excretion; but this process is arrested by calomel, and the coloring agents, unaltered, give the feces their peculiar bright green hue.

These researches are described at length by Dr. Vassilieff, in the *Zeitschrift fur Physiologische Chemie.* He has found that this action of calomel is due to its power over the microorganisms intimately associated with the process of decomposition which takes place in food during digestion. The drug prevents the development of micro-organisms in the digestive fluids, and also destroys any bacteria and micrococci already developed. This fact was proved first by artificial digestion. Vassilieff then made a series of experiments to find whether calomel had the same influence in natural digestion. Thirty grains of calomel were administered to a dog, in two doses, and the animal was killed a few hours later. Under all precautions, the contents of the intestines were then carefully analyzed. Neither indol nor phenol could be found; and it will not be forgotten by those who study contemporaneous physiological research, that other agents—such as salicylic acid—prevent the formation of indol; and that pancreatic mixtures, formed from natural pancreatic juice, or infusions of pancreatic glandular tissue, undergo septic changes with very great rapidity, in spite of all precautions. None of these changes, nor any formation of indol, occurred in the food taken by dogs to which Vassilieff administered calomel. On the other hand, leucin and tyrosin were found in abundance. Under natural circumstances, these products of pancreatic digestion are so rapidly decomposed that they can not be detected in semi-digested food. Hence calomel has no influence on the action of the digestive fluids, but entirely prevents those true retrogressive and putrefactive changes whereby the highly unstable products of these fluids are rapidly decomposed, and micro-organisms quickly developed in great numbers. When calomel enters the alimentary canal, leucin, tyrosin, bilirubin, and other substances remain unchanged, and bacteria are checked and killed.—*British Medical Journal.*

The Germ Theory of Typhoid Fever, and the Treatment of this Disease by Salicylate of Bismuth.

THE tendency of the age is undoubtedly to account for all the contagious febrile affections, as well as many chronic diseases, by the hypothesis of the specific microphyte, whose ravages constitute the pathogenetic element. This tendency is exemplified in the theory, recently formulated, and ably supported by Klebs, of Prague, and Eberth, of Zurich, as to the etiology of typhoid fever.

According to these pathologists, typhoid fever is due to a peculiar microbe which presents itself in the form of rods or filaments, some of which contain spores. Between the rods and the filaments transition forms are observed, which make it probable that the latter are derived from the former.

These micro-organisms have been found by Klebs, in accordance with the period of the disease from which death resulted, in the following localities: 1, in the intestine, first in the glands of Leiderkuhn, later in the interglandular tissue and in Peyer's patches, still later in the submucous cellular tissue, and even in the muscular layer; 2, in the mesenteric glands; 3, in the spleen; 4, in the lungs (the parts affected with hypostatic pneumonia); 5, in the brain.

He has also found them in abscesses complicating typhoid fever, in ulcerations of the larynx, in the kidneys, the myocardium, etc. In these various sites he has detected the same microbe, and in numerical abundance proportioned to the disorder of function of the organ where the bacillus has been found. Klebs has made many cultures of the microbe, and has inoculated animals with the final product, reproducing in hares, pigeons, guinea pigs, etc., the characteristic anatomical lesions of typhoid fever.

Eberth, of Zurich, after an independent series of investigations, has found in the lymph-organs of the abdomen—intestinal mucous membrane, mesenteric glands, spleen—certain rods whose characters correspond with those noted by Klebs. These rods have, in fact, been identified with Klebs' bacilli.

Klebs gives a graphic *resume* of the march of this malady. The bacillus typhosus, or its spores, are taken into the mouth and pharynx in the act of respiration, and are carried to the stomach with the saliva or food. Arriving in the small intestine, they produce by their multiplication a diffuse catarrhal inflammation, and commence to penetrate the mucous membrane. This anatomical stage corresponds to the period of incubation of the disease, a period characterized by anorexia, prostration, and a slight febrile movement. At this epoch the disease is still local; it is not till later, when the bacillus has effected an entrance into the blood and has invaded the organs, that we witness the second "classic" stage, the stage of infection, characterized by fever, cerebral symptoms, etc. At the same time the intestinal inflammatory process concentrates itself on Peyer's patches, which finally become necrosed and eliminated. The microbes, moreover, may multiply in the spleen, brain, lungs, and produce there grave disorders.

It sometimes happens that the bacillus first undergoes development in the lungs; the disease then commences as a pneumonia (typhoid pneumonia); at the autopsy the intestinal lesions (when they exist) are more recent than the pulmonary lesions.

The primitive lesions of the intestines are not always in such direct relation to the secondary lesions of other organs, that to the intestinal alterations, however extensive and profound, corresponds a proportionate perturbation of other functions of the economy. The autopsy often demonstrates that the intestinal ulceration may be most marked and grave, at the same time that the general infection may have been almost null; such are the cases described as *typhus ambulatorius*, or walking typhoid. On the other hand, with general infection and serious constitutional symptoms, the local intestinal lesions may be inconspicuous or wanting. In a word, typhoid fever comprehends two distinct diseases; the local intestinal lesion, and general infection with localization in different organs. These two factors of this complex disease are synchronous in a part of their duration. The first precedes the second, and the latter is in full evolution while the lesions of the former are undergoing reparation.

The germ theory of typhoid fever is far more probable than the chemical theory; in fact, we can imagine no chemical ferment or "poison" which is capable of producing such phenomena, while the hypothesis of a *contagium vivum*, infinitesimal in its commencement, pullulating in the system, and invading important vital organs, which are robbed by it of their life-sustaining oxygen and pabulum, till the environing conditions are no longer favorable for the maintenance of the parasite, well explains all the striking phenomena of the disease. Moreover, important inductive evidence is every year making the microphyte theory less an hypothesis and more a fundamental fact in pathology. The inoculation experiments of Klebs, above alluded to, constitute the kind of proof now demanded.

Almost all pathologists being convinced of the germinal origin of all contagium, there is a dominant desire on the part of therapeutists to attack the microbe by suitable germicides in the alimentary canal or in the blood, to prevent its multiplication and effect its destruction. There is very general agreement that we are not yet in possession of any sure and safe means of combating the germinal *materias morbi* when once it has effected entrance into the blood. No one has more clearly shown this than Professor German See in a late lecture. Quantities of any known antiseptics, such as would be necessary to rid the blood of the parasitic contagium, would be toxic and speedily fatal to the organism. This is notably the case with such germicides as bichloride of mercury, chlorine, iodine, carbolic, and even salicylic acid. Salicylic acid, the only acid to be seriously thought of in this connection, has never yet been given in sufficient doses to arrest typhoid fever in its march, or even materially to modify its evolution. Professor See has known of a rheumatic patient who, while taking ten grains every two hours of salicylic acid for several days, was nevertheless attacked by typhoid fever, which pursued its usual course.

Being then debarred from any safe and certain chemical antidotes against the morbific bacillus when it has pervaded the system, our therapeutical efforts are diverted to other indications, such as the support of the vital forces in the struggle in which they are engaged. But can we do nothing to effect the destruction of the disease-germ while it is in the alimentary canal, before it has penetrated the tissues or gained the circulating fluid? Not a few distinguished therapeutists have answered this question in the affirmative, notably Gueneau de Mussy, Herard, Hallopeau, Liebermeister, Wunderlich, and in this country, Dr. James C. Wilson and Roberts Bartholow. The treatment of the last two authorities is essentially identical. Calomel is given in full purgative doses during the first week. This is exhibited for a double purpose, to restore heat production and to destroy typhoid germs in the intestine. Iodine is given throughout the disease, in combination with carbolic acid, or as Lugol's solution. Bartholow's formula is two parts tincture of iodine to one of strong carbolic acid; of this from one to three drops every three hours during the day and night. By this medication it is intended to arrest the multiplication of germs in the intestine and prevent fermentation.

Professor Henri Desplats, of Lille, is favorably known by his numerous theses on the antiseptic treatment of fevers, especially by a memoir published last year on the treatment of typhoid fever by carbolic acid. After long experimentation with various salicylates in typhoid fever, he has found in the salicylate of bismuth the great desideratum. It is sparingly soluble, and therefore is more likely than most medicaments to escape absorption in the stomach and to reach the diseased intestine. It moreover has an energetic action on the organized ferments, and is a bactericide of great power. Taken during the prodromic period, when the infection is purely intestinal, the microbes not having entered the blood and tissues, its efficacy is greater; in Dr. Desplat's experience it has even had a marked abortive action. Thus, out of twenty cases reported by him, eleven (or more than one-half) treated in the first stage were cut short in four or five days under the free use of salicylate of bismuth. At least this is the belief of the professor, who gives the particulars of these cases with great minuteness, showing that the patients had all the characteristic symptoms of the disease with varying degrees of severity. In four cases the bismuth salt had a very decided moderating effect on the temperature, but the disease was prolonged by complications. In five cases, all of which were very grave, the action of the medicament was nul. The ordinary dose was about a scruple. This was repeated sufficiently often, so that the daily quantity taken should equal about six grammes (or about one drachm and a half). In some instances, where the fever-heat was excessive, the salicylate was given in one full dose of three, or even six drachms, but these large doses proved somewhat depressive. The medicament is not unpleasant to the taste and is easily borne. In short, the perusal of this article seems to justify the hope that in the salicylate of bismuth we have a new medicament of very great antiseptic value.—*Medical Record.*

Microscopy.

ORIGIN OF PUS CELLS.—There are two leading theories concerning the origin of pus cells: first, that of Cohnheim, who teaches the cell emigration theory, claiming that pus cells are leucocytes or wandering white blood-corpuscles and denying their origin from other sources; and second, that of Stricker, who, adopting with some modifications the teachings of Virchow, holds that pus cells are not emigrated cells, but that they originate from the cells of the inflamed tissue, they having returned to their embryonal condition, and from these pus cells are differentiated.—*Minor.*

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THE PRESENCE OF BACILLUS TUBERCULOSIS IN AN ABSCESS NEAR THE ANUS.—Dr. Robert C. Smith writes: Six months ago a young clerk, aged 21, came under treatment for hemoptysis and other signs of phthisis. After about three months' treatment he became strong enough to resume his employment, at which he continued up to the commencement of this month. I saw him on the 5th, when he was suffering acutely from an abscess in the neighborhood of the anus; and, fearing lest it might burst into the bowel and give rise to a painful blind internal fistula, I opened the abscess at once and let out a quantity of thin, curdy, fœtid pus. A microscopic examination of this fluid by a half-inch object-glass, after the usual process of staining, revealed the presence of great quantities of well-marked typical tubercle-bacillus. Now, the presence of these organisms in this situation is interesting, as they tend to throw some light on the well-known connection between fistula and phthisis.—*British Medical Journal.*

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The Following Rules for the examination of urine are given by Dr. Formad in the Louisville *Medical News:* 1. Sediment in the urine has no significance unless deposited within twenty-four hours. 2. Albumen in the urine does not indicate kidney disease, unless accompanied by tube casts. The most fatal form of Bright's disease—contracted kidney—has little or no albumen. 3. Every white crystal in the urine, regardless of shape, is a phosphite, except the oxalate of lime, which has its own peculiar form, urine alkaline. 4. Every yellow crystal is uric acid, if the urine is acid, or a urinate, if alkaline. 5. Mucous casts, pus and epithelium signify disease of the bladder (cystitis) or of other parts of the urinary tract, as determined by the variety of the epithelium. 6. The urine from females can often be differentiated from that of the male by finding in it the tessellated epithelium of the vagina. 7. Hyaline casts (narrow), blood and epithelial casts signify acute catarrhal nephritis. Much albumen. 8. Broad hyaline casts, and epithelial dark granular, and oil casts signify chronic catarrhal nephritis. At first, much albumen; later, less. 9. Hyaline and pale granular casts and little or no albumen signify interstitial nephritis. 10. Broader casts are worse than narrow, as far as diagnosis is concerned, for the former signify a chronic disease. 11. The urine should be fresh for microscopical examination, as the micrococci will change hyaline casts into granular casts or devour them entirely in a short time. 12. Uric acid in the urine may in Trommer's test for sugar form a protoxide of copper, thus often deceiving the examiner in the belief that he has discovered sugar. Thus, when urine shows only a trace of sugar, other methods of examination besides the Trommer's test must be used—preferably the lead test. 13. The microscope gives us better ideas of the exact condition of affairs in the examination of urine than the various chemical tests. Therefore, the time has come when every true physician should know how to handle the microscope.

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MOLLUSCUM CONTAGIOSUM GIGANTEUM.—Under this name, says the "*Medical Times and Gazette*," Dr. S. Laache, of the Anatomico-Pathological Institute of Christiania, describes, in a recent number of the "*Nordiskt mediciniskt Arkiv*," a tumor extirpated from the nape of the neck of a female aged fifty-six. This tumor, which had lasted for thirty years, but had increased considerably for the last four years, was of the size of the fist, with nodulations or unequal protuberances on the surface; it was covered at its base with normal skin, sending tongue-like ramifications over the whole tumor, which were transformed at last into a delicate membrane, half pellicular and half grandular, covering the whole mass except at the summit, where there was a flat crateriform depression. Under this incomplete covering there was the mass of the tumor, which, as it were, undulated against the surface. The cut surface, equally composed of nuclei of unequal size, separated by septa of cellular tissue, presented a granular aspect, but without the knife being covered with adipose matters. Examined by the microscope, the lobules contained, in the circumference, cellules evidently resembling epidermis, while in the center was a considerable number of corpuscles with an adipose or waxy luster strongly resembling amyloid tissue. In all other respects they resembled the corpuscles of molluscum, with which the author compared them. In his remarks on the case, Dr. Laache discusses the differential diagnosis between molluscum and epithelioma or cancroid, to which last the tumor was at first referred. From cancroid, however, the molluscum in question was distinguished by its definite form and its tendency to grow outward, besides by its being covered entirely by a kind of delicate skin without any apparent ulceration. It was, however, the presence of corpuscles of molluscum in considerable number which determined the diagnosis. The author admits, however, that, as regards prognosis, the tumor could not be regarded as being so benignant as ordinary molluscum, and he therefore thinks he ought to consider it as a transitional form between the malignant epithelial tumor and the benignant one. He observes that there was no relapse at the end of more than six months. In conclusion, Dr. Laache considers the presence of nuclei in several of the shining corpuscles as a proof in favor of the opinion that the corpuscles of molluscum are the results of a peculiar degeneration of pre-existent epidermic cellules.

Germicides.

BY HENRY O. MARCY, M. D., BOSTON, MASS.

[Read to the Section on Surgery and Anatomy.]

THE deleterious effect of micro-organisms upon wounds can no longer be doubted. The so-called germ theory has passed into the realm of demonstrated fact. The patient labors of scores of very careful investigators during the last generation have slowly elaborated the fact that fermentation is dependent upon a particulate something, omnipresent in ordinary surroundings, and clearly shown that this something belongs to one or another of the varieties of exceedingly minute vegetable organisms, which compensate by number and rapidity of development that which they lack in size. In the study of these minute organisms the important question arises, perhaps second at present to none in the entire realm of the science of medicine, How can we be protected from their deleterious effects?

As the outcome of experimental research, there has been offered to the profession a large number of so-called germicides, and the thought which prompted the laboratory studies that form the basis of this paper was to test the comparative values of as large a number as the time at our disposal would permit. We take pleasure in acknowledging the painstaking and efficient aid of Dr. Samuel N. Wilson, of Cambridge, in the entire series of experiments.

At the outset it is well to bear in mind that one agent may possess a value dependent upon its power to destroy the vital organism, and another upon its power to restrain it from active development, although it has no destructive effect upon the organism itself. Thus, in a certain sense, as a result, this latter group of agents may be classed with the former, as, for example, chloride of zinc, which restrains the bacteria from development, because it acts chemically upon the albumen of the nutrient fluid.

Although the results of the experimental researches to be given have an indirect bearing upon the medical value of the different agents tested, the primal thought which prompted the investigation was to ascertain the value which such agents may have in their surgical uses, for the destruction of organisms which cause putrefaction in wounds, the agent to be of value must act quickly, and it was therefore held as important that the material to be tested should have only a brief period of contact with the germ-bearing fluid. For this reason a considerable quantity, in each instance three drachms, of the test fluid was carefully mixed with one drachm of the putrefactive material, and after a given measured time a small portion of the mixture, two or three drops only, transferred to the aseptic nutrient fluid which was carefully protected from contamination and placed under observation. If bacteria have preserved their vitality during the brief period of contact with the antiseptic, the minute quantity thus taken as *seed* will rapidly germinate in the nutrient solution, and soon putrefactive changes will be apparent.

Thus we know that either the antiseptic was not of a sufficient strength, or not in contact for a length of time requisite, to act as a germicide. By varying the time of exposure and the strength of the antiseptic solution, the experiment is repeated, until the minimum time and strength have been ascertained, which are requisite to destroy the bacteria in the material used. Of course each test was verified by careful microscopic examination, in order to determine the presence or absence of micro-organisms, and when found, their character and condition.

The first series of experiments which were undertaken more than a year ago were made as follows: The aseptic solution was prepared by boiling several small pieces of meat with a large quantity of water in a glass flask, purified by exposure to the flame of an alcohol lamp. This flask was stopped with a rubber cork perforated by two glass tubes for the convenience of decanting. The tubes were bent downward and the ends were protected with carbolized gauze. The cork and tubes were carefully cleansed beforehand with carbolic acid. The resulting solution, if made with lean meat settles clear; if the meat is fat the solution is rendered cloudy by fine oil drops and must be prepared again. The solution thus in a proper condition was placed under a bell jar, where it remained indefinitely aseptic. The combined material is placed in a test tube purified by heat, and this is covered by a bell glass similarly purified which rests upon a carbolized cushion. In this way it is subject to easy inspection, and is protected from all external agencies.

It must be borne in mind that these experiments differ essentially from those of Dr. Koch, now widely known, and also from those equally interesting and instructive of Dr. Sternberg, recently published in the April number of the *American Journal of Medical Sciences.* Here the test solutions are made of given strength, and into these the bacteria under observation are introduced and allowed to remain. In Dr. Sternberg's experiments the standard of time chosen was two hours, in our own from five seconds to five minutes.

Although I think the former methods perhaps the best for certain deductions which may be safely drawn therefrom, this difference of treatment of the various substances must be held in consideration in the comparison of the results obtained. In each instance the microscopical examination was made, and the results noted before reference to the substance being tested, in order that there might be no preconceived opinion of the value of the antiseptic to modify in any way the judgment. Uncharged aseptic tubes accompanied every experiment to note the accuracy of manipulation and these remained sterile. In each series a like quantity of septic solution was placed under test, which invariably germinated. Thus we believe the experiments are in the main trustworthy.

The interesting experiments of Dr. Sternberg, furnished the American Association for the Advancement of Science, 1881, caused us to adopt his method of manipulation, which is much easier and safer. The bulbs used by Dr. Sternberg are not very unlike those used by Dr. Roberts in his experiments published in 1874. They are made from glass-tubing four-tenths of an inch in diameter, and will contain from one to four drams of fluid. With a little practice they are easily manufactured by one who is not an expert. After they have been partly filled with the nutrient fluid, they are sealed in the flame, and their aseptic condition rendered more certain by boiling in a strong salt solution for a considerable period, even for twenty-four hours. They are then put aside for observation. If aseptic, and they rarely fail to be, they may await use any convenient period. The end of the tube is broken when desired to be charged with the test solution, and again sealed, numbered and placed under observation. A slight film of albumen is frequently noticed upon the bulbs.

Gleanings.

Sub-Periosteal Amputation at the Hip Joint.—At a meeting of the Clinical Society of London, in February, Mr. Shuter showed a case in which he had successfully performed this operation in the following manner (something similar to the plan suggested by Prof. Ollier, of Lyons, in 1859, and also to the method published more lately by Mr. Furneaux Jordon): A circular amputation through the junction of the middle and upper thirds was done, followed by a longitudinal incision on the outer side of the femur, down to the bone, the periosteum stripped off and left in the flaps, and the whole of the bone enucleated. A little more than two months after the operation the patient (aged 18) had a movable stump, and within six months of the operation was wearing an artificial limb, on which he could get about very satisfactorily. This case was the first of the kind attended with the formation of bone in the stump and capacity to wear an artificial limb. Mr. Bryant said the stump was certainly the best he had ever seen after amputation at the hip-joint; he thought, however, there was no reproduction of bone, the good result being due to firm attachment of the muscles to the periosteum. Mr. Croft said the case shewed the possibility of complete sub-periosteal excision of the hip which had beee denied by some. He asked how Mr. Shuter had succeeded in cleaning the periosteum from the great trochanter. Mr. Pick said this was the only instance in which he had known a patient after this operation able to wear an artificial limb. He evidently moved it by swinging the pelvis. Mr. Davey referring to the use of his lever in controlling hæmorrhage in the hip-joint amputations said he had records of its use forty times (20 on each side) and in the case of amputations the recoveries had been sixty-five per cent.

In reply Mr. Shuter said that since his own operation he had assisted at one like it; the case died after three months and the newly-formed bone was found in the stump. In his case he had not bared the great trochanter of periosteum.

DR. WM. T. TAYLOR reports in the Philadelphia *Medical Times* a case in which a delicate, nervous Irish woman gave birth to a child, Oct. 16, 1882, in which the glans penis was entirely devoid of prepuce. The mother accounts for the *lusus naturæ* by an impression made upon her during gestation by the sight of one child pulling violently at another's penis. She feared that the organ would give away under the tension and became sick at the sight There is food for thought in this report, especially for Israelites and advanced sanitarians.—*Mich. Med. News.*

A NEW DEPARTURE—At the annual meeting of the Scott County, Iowa, Medical Society, held on the evening of February 15th, 1883, Dr. Jennie McCowan was elected President for the ensuing year. This is the first instance in the history of the medical fraternity in which a woman has been chosen for the executive position of a medical society. Her selection is a compliment to Dr. McCowan, who has gained the reputation of an excellent physician. She is worthy of the honor conferred upon her.—*North Western Lancet.*

Book Notices.

THE PRINCIPLES AND PRACTICE OF SURGERY, BEING A TREATISE ON SURGICAL DISEASES AND INJURIES. By D. Haynes Agnew, M. D., LL. D., Professor of Surgery in the Medical Department of the University of Maryland. Profusely Illustrated. Volume III. Large 8vo. Pp. 784. Philadelphia: J. B. Lippincott & Co. Cincinnati: R. Clarke & Co Price $7.50.

This very fine work upon Surgery has now reached its third and last volume. The previous volumes were noticed in the MEDICAL NEWS as they were issued. For a period of over five years the author has been occupying his leisure moments in preparing the work, and he is to be heartily congratulated in having brought it to a close – congratulated for having finished a most laborious task, and congratulated for having produced a work that will take position with the best works of the kind in the English or any other language.

The present volume (Third) contains fourteen chapters, beginning with the Twenty-Fourth. We find the following subjects treated: "Surgical Diseases of the Larynx and Trachea," occupying about seventy-five pages; "Diseases and Injuries of the Nose, the Naso-Pharyngeal Region, the

Associated Parts;" "The Diseases and Injuries of the Eye and its Appendages;" "Diseases and Injuries of the Ear;" "Malformations and Deformities—Tenotomy in the treatment of Orthopedia;" "Affections of the Muscles, Tendons, Bursæ, and Aponeuroses;" "Surgical Affections of the Nerves;" "Surgical Affections of the Lymphatic System, Skin, and subcutaneous Connective Tissue;" "Syphilis;" Tumors;" "Diseases of the Mammary Gland;" Electricity in its Application to Surgical Therapeutics;" "Operations for Nerve Stretching;" "Massage."

In treating of the diseases of the Larynx and Trachea the author commences with a description of the Laryngoscope, giving a history of it, and describing its uses. The invention of this instrument, which has contributed so immensely to exact knowledge, not only in the diagnosis of laryngeal diseases, but also in the successful application of methods for their treatment, dates its "seed-thought" back, we learn, to the year 1743, when M. Levret, a French accoucheur, invented a crude instrument for exposing the interior of certain cavities. It was not, however, as our author states, until the beginning of the present century (1804) that the exploration of the cavities of the body by illumination began to take practical shape. In 1829, Dr. Babington, of London, introduced two mirrors, one a small one for the throat, and the other large and designed to concentrate the rays of light upon the pharynx, and in this manner to impart distinctness to the image depicted on the small mirror. The device of Dr. B is, practically, the laryngoscope in use at present time. The whole chapter devoted to laryngeal affections is quite interesting and the study of it, by the general practitioner, will prove very valuable indeed to him.

In speaking of *Tuberculous Laryngitis*, Dr. Agnew says that this variety of laryngeal inflammation is rarely, if ever, a primary affection, being generally one of the secondary accidents of phthisis pulmonalis and ending quickly in ulceration. "Indeed," he says, "the existence of tubercular irritation of the larynx has been denied by a number of writers. I can conceive of no anatomical reason which would preclude a deposition of tubercle in this locality more than in any other organ or tissue of the body, but it is extremely improbable that tuberculosis of the larynx ever occurs as a primary affection. The laryngeal inflammations and ulcerations which sometimes precede tuberculosis of the lungs commence, it is believed by Buhl, as perichondritis, while

Waldenberg attributes these lesions to folliculitis, with which opinion Dr. Cohen in the main agrees. As a secondary condition, however, of pulmonary consumption, it is by no means uncommon. Louis observed it 63 times in 193 cases of pulmonary consumption—a frequency not greater than that since noticed by other writers."

Although the volume before us is one of three volumes of a single work, yet, as each of the chapters composing it is really a complete monograph of the subject of which it treats, and can be studied by itself, a purchaser would have quite a complete and independent work if he possessed it alone, not being able to procure the two previous ones. There is no connection of the diseases treated in this volume with the affections and injuries to which the other two are devoted, and it constitutes consequently really an independent book. Laryngeal affections, diseases of the eye, syphilis, etc., have no relationship with fractures, dislocations, wounds, gunshot injuries etc., although they all come under the head of surgery.

In conclusion, we have no hesitation in pronouncing the work of Prof. Agnew, as now completed in its three volumes, as fully up to the highest standard of the most eminent works upon Surgery now published. As a thorough, scientific, comprehensive treatise, representing the latest surgical knowledge, it has no superior. Elucidating, as it does, all the diseases and injuries classed under the head of surgery, as clearly, and as much in detail as is necessary for the practitioner to have an intelligent understanding of them, he will possess in it a most valuable work for constant reference.

ANATOMY, DESCRIPTIVE AND SURGICAL. By Henry Gray, F. R. S., Lecturer on Anatomy at St. George's Hospital Medical School. With an Introduction on General Anatomy and Development. By T. Holmes, M. A., CANTAB.—Surgeon to St. George's Hospital, etc. The Drawings by H. V. Carter, M. D., Late Demonstrator of Anatomy at St. George's Hospital. With additional Drawings in Later Editions. Edited by T. Pickering Pick, Surgeon to St. George's Hospital, Examiner in Anatomy, Royal College of Surgeons of England. A New American from the Tenth English Edition. To which is Added Landmarks, Medical and Surgical. By Luther Holden, F. R. C. S. With Additions by

William W. Keen, M. D. Large 8vo. Pp. 1023. Philadelphia: Henry C. Lea's Sons & Co. Cincinnati: R. Clarke & Co. 1883. Price $8.00.

Whatever we might say in praise of this great work upon Anatomy, we would not fear of being charged with exaggeration by those who are acquainted with its merits. It has long ago taken precedence of all other works upon Anatomy, and is used as a text-book almost exclusively in all the medical colleges of this country and England. Thirty years ago, we recollect that Wilson's Anatomy was the text-book upon Anatomy *par excellence*, having crowded out the works of Wistar and Horner, which had been the authorities just before, and was thought to present everything desirable in its department, and not susceptible of improvement. But the superiority of Gray's work to that of Wilson's is so manifest that the tyro can at once perceive it.

The work has now reached a tenth edition in England, and we are not informed how many reprints have been made in this country. Certainly a great many. The present one, we learn from the publishers' notice, like the previous American reprints, has been passed through the press under the supervision of Dr. R. J. Dunglison. As the work has had the advantage of two revisions at the hands of the distinguished editor, Mr. Holmes, since the appearance of the last American edition in the year 1878, no necessity has been found for the insertion of additional details, but Dr. Dunglison has carefully corrected whatever errors had escaped attention in England, and has made such changes in the typographical arrangements as seemed calculated to render the volume more convenient for consultation and reference. A few illustrations have also been inserted. "*Landmarks, Medical and Surgical*," by Mr. Holden, has attracted so much attention, as affording, within brief compass, exactly the information required by practitioners in the application of anatomical knowledge, that the publishers have hoped, by appending it, to render the volume still more acceptable to those for whose use it is intended.

The sections on Microscopical Anatomy have been considerably altered or entirely rewritten, in order to keep pace with the ever increasing activity of research in this branch of the *science* of Anatomy. Several new illustrations have been added, and some of the old ones have been replaced by others. These microscopical sections with their illustrations are especially valuable. There are gathered here in comparatively few pages descriptions, brief but sufficiently full, that are scattered throughout other works, and consequently are most convenient for study by the student. This part alone is worth the price of the book.

But it is not necessary to occupy further space in describing a work so generally known and acknowledged as holding the highest position of any other devoted to the same department of knowledge. It contains all that is needed by a student in a text-book on Anatomy, presented in the best manner that can be done to acquire it. We can not imagine how it can be excelled.

?QUIZ-COMPENDS? A New Series of Books for Students' Use in Quiz-Class and Examination Rooms. Philadelphia: P. Blakiston, Son & Co. Cincinnati: R. Clarke & Co.

In our last issue we noticed the *Quiz-Compend upon Surgery*, describing it somewhat at length Through the kindness of the publishers we have received the other numbers that have been published.

The Compends have the following characteristics:

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We intend to refer to these Compends again at some future time. The price is only one dollar each.

THE ESSENTIALS OF PATHOLOGY. By D. Tod Gilliam, M. D., Professor of Pathology in Starling Medical College, Columbus, O., etc. 12mo. Pp. 296. Philadelphia: P. Blakiston, Son & Co. Cincinnati: R. Clarke & Co. Price $2.00.

The object of this little book, as the author states, is to unfold to the beginner the fundamentals of pathology in a plain, practical way; and, by bringing them within easy comprehension, to increase his interest in the study of the subject. A very considerable experience in teaching, extending through some years past, the author modestly says, leads him to hope that this effort will not prove barren of some good results.

An examination of the work shows that it possesses very considerable merits; and if it should meet with the patronage it deserves, there will be a large demand for it. Although not designed to take the place of the larger works upon the subject, yet it is complete enough to impart a very satisfactory knowledge of pathology. It is not only well adapted for students, for whom it has been more especially prepared, but physicians will find it very convenient for reference to refresh their memories, and, in the shortest manner, to acquaint themselves with the progress that has been made in pathological study to the present time.

The interest that is being taken in Microscopy at this time is most wonderful indeed. Physicians are procuring microscopes who before had scarcely ever looked through one. Such a little work as Dr. Gilliam's, to those just beginning to use a microscope, will be found quite valuable. No inexperienced person can examine a pathological specimen, and learn anything from the examination, unless he has first been taught what changes disease is apt to bring about in a structure; and the best source for him to first gain this knowledge is an elementary work which will make prominent elementary principles in a plain, concise way. We know of no work which does this better than the one before us, and we, therefore, recommend its study to all who have recently purchased microscopes, and propose to use them not for amusement but for instruction in what pertains to their profession.

In separate chapters there is described Normal Histology; Constructive Processes in Disease; Destructive Processes in Disease; Degeneration; Infiltration; Metamorphoses; New Formation of Connective Tissue, Embryonic, Mature; Cysts; Diseases of Cartilage; Diseases of Bone; of Muscles; of Serous Membranes, etc.; Diseases of the Brain and Spinal Cord; Diseases of the Lungs; Varieties of Cancer, etc. But these are only a very few of the subjects discussed. All of the principal features of Pathology receive more or less attention.

Editorial.

Breeding of Cholera Germs.—Dr. Wm. B. Carpenter sends the following interesting letter to the London *Daily News:*

"Entirely agreeing with my friend, Prof. Tyndall, in the doctrine that the human intestine is a breeding ground for the germs of cholera, and that the conveyance of these germs by infected waters is a potent factor in the spread of that disease, I think it most dangerous to assume—what his language seems to me to imply—that the human intestine is the only breeding ground for cholera germs, and the transmission of them by tainted water the chief (if not the only) mode of their diffusion. Having been throughout my professional life, from the first invasion of Asiatic cholera in 1831, a careful student of the conditions of its propagation (which I often discussed with my late friend, Dr. E. A. Parkes), I am perfectly satisfied that there are many cases which clearly indicate that cholera germs can also breed outside the living body, in collections of decomposing organic matter, and can be thence diffused by the atmosphere, a doctrine which every one who is acquainted with the propagation and diffusion of putrefactive *bacteria* must regard as involving no inherent improbability. The epidemic of 1848–9 supplied three very marked examples of this kind, which I was accustomed to bring before my class year after year when Professor of Forensic Medicine and Public Hygiene in University College.

"One of these occurred in a suburb of Alnwick, in Northumberland, where almost every inhabitant of a certain row of cottages was smitten in one night with either cholera or choleraic diarrhea. These cottages had gardens behind them, at the far end of which was a row of very filthy piggeries. This almost universal outbreak followed immediately upon a change in the direction of the wind, which came to blow directly over the piggeries to the cottages. The second case was essentially similar, but on a much larger scale. It occurred in the City Poor-house at Baltimore, which was situated out of the town, in what was believed to be a peculiarly salubrious locality. The municipal authorities of that city had taken very active and, as the event proved, very efficient measures for warding off the disease from its inhabitants. Though cholera was very severe in New York, Philadelphia and Washington, only a few imported cases occurred in Baltimore itself. But in the Poor-house, containing about eight hundred persons, a most fearful outbreak suddenly occurred, the deaths being as many as thirty per day. The place had been carefully cleansed, there was no overcrowding, and the drainage was believed to be efficient. But a more careful examination disclosed the fact that the drains, instead of being conducted into a neighboring ravine down which a stream ran, ended in a piece of marshy ground covered with rank grass that lay between this ravine and the back of the Poor-house inclosure. And it was then noticed that the outbreak had immediately followed a change of wind, which caused it to set over this marsh toward the back of the Poor-house. With this clew, the singular phenomena of the outbreak were at once found explicable. All the first cases occurred in the back rooms of the building, and the number and severity of them bore a most remarkable relation to the local conditions which made one part of it rather than another the recipient of the fatal germ bearing air-currents. The cause being thus detected, effectual measures were immediately taken to antagonize its action, and the plague was at once stayed.

"Prof. Tyndall may recollect being present, some years ago, at Sion College, when I brought this case before an assembly of clergymen in an address on the 'Reign of Law,' and asked whether any of my hearers believed that if all

Baltimore had gone down on its knees for a week in penitence and prayer, without taking the human means dictated by the study of the 'laws' of their Divine Government, and of the consequences of the infraction of them, this favorable result would have been brought about. My third case, which was in some respects even more striking, was related to me by an old fellow-student, who had been in Mexico at the time when the cholera epidemic reached that country, and was residing in a town (whose name I forget) of about twenty thousand inhabitants, situated on a level plateau on a mountain side at a considerable elevation. He noticed that a large proportion of the earlier cases occurred along a particular line, and that the subsidence of the disease along this line was followed by a sudden outbreak of the like kind along another line at an angle with the first; and he further noticed that this second outbreak had been immediately preceded by a change of wind. Strongly suspecting, therefore, that the choleraic miasmata must have been wafted along each line from a common focus, he ran the two lines together as a bee-hunter does, and found at their point of convergence an inclosed yard containing an enormous heap of filth. What doubt can be reasonably entertained that this heap had served as the nidus in which the cholera germs had propagated, and from which they had been atmospherically conveyed?

"In one important respect, however, the Baltimore case is yet more instructive, since all the evidence there pointed to an original atmospheric implantation of the disease germs in the miasmatic marsh in which they bred, and from which their multiplied progeny were wafted to the unfortunate inmates of the Poor-house, for there had not been, as in all the known instances of poisoning by water supply, any previous case within the building from which the primal germs could have been furnished, while the local conditions precluded the idea that the marsh could have been contaminated by any other direct human communication. In the light of these cases, to which many more might be added, I hold it to be at the same time unscientific and unsafe to limit the breeding-ground of cholera germs to the human intestine, and to affirm that they can neither propagate themselves in fœcal or other decomposing organic matter outside the living body nor be introduced into it otherwise than through the mouth. Prof. Tyndall lays great stress on the analogy of typhoid, but he must be aware that some of our best authorities do not admit his exclusive doctrine, even in regard to that disease. And even if that doctrine were conclusively established, it could not invalidate the evidence I have now adduced in proof of the atmospheric diffusion of cholera germs bred outside the human body, since, if I am not mistaken, there are no cases on record of sudden and simultaneous outbreaks of typhoid under conditions at all parallel."

GOV. BLACKBURN'S VALEDICTORY.—The term of Governor Blackburn, as Governor of Kentucky, recently expired. During the time of his office he was freely charged with recklessly pardoning prisoners who had been sentenced to the State's prison for most flagrant offences. In his valedictory, on giving up his office, he alludes to the wretched sanitary condition of the Kentucky penitentiary; and it is evident, that, in consequence of its deplorable unhealthfulness, he justifies his conduct in so freely making use of his pardoning power to let loose on the community, after brief incercerations, noted murderers, thieves, forgers, etc. Some of these pardoned criminals had been arrested and convicted only after great trouble and expense, and their almost immediate release, caused oftentimes great complaint.

It is probable, from all accounts, that the Kentucky penitentary is the most disgraceful prison of modern times. Not only is it filthy and in a most wretched sanitary state, but we have understood that its discipline is of the most brutal character. We have heard that prisoners are shot, killed and crippled like beasts, and beaten and maimed in a manner that would be foully cruel to inflict upon a beast. If half we have heard were true, it would be a burning shame to the great state of Kentucky.

We do not believe in catering to criminals and treating them, while imprisoned, better than working people are treated who earn their living, yet it should be kept in mind that they are human beings, and they should not be subjected to gross acts of humanity which really amounts to murdering them by slow degrees. Complaints are now and then heard in regard to houses of correction in Ohio, but, we believe, that, notwithstanding, they are generally in tolerable condition, and the inmates treated well, their reformation being kept in view.

We quote from the valedictory of Gov. (Dr.) Blackburn, so that our readers may see for themselves what he has to say.

He talks as follows: I found our penitentiary a miserable hole of filth—a fit place for disease, pestilence and death. Within less than a year seventy-four convicts had died, and many were on the verge of the tomb, destined soon to enter its dark portals: Scurvy, malaria, fever, were all at work, and the spectacle presented was pitable indeed. There were 969 prisoners with but 780 cells, these wretched convicts, as a matter of necessity, had to be crammed into cells with others, and thus it was I found over three hundred miserable human beings immured two and two in a cell, although these cells were but three feet nine inches wide, six feet three inches high and six feet eight inches long. In many instances young men who, perhaps, had made but a single step in crime, were thrust in these dark, unwholesome, little dens with old and hardened criminals, and the beastliness which followed was so full of horrors that I shrink from their recital, and will only say that they rivaled in coarse vulgarity anything that could have occurred in the lost and sunken cities of Sodom and Gomorrah. The condition of the prison and the prisoners was simply disgraceful to the State, and no man who was fully aware of the then existing state of things could have upheld them, unless he had been so dead to every generous feeling as the brutish beasts themselves. Dr. Rodman, who was then the prison physician, declared under oath that these cell-houses were as bad as they could be; and that whereas each man ought to have in his cell 840 cubic feet of air, there was in our cells but 172 cubic feet of air to two men.

"A MIRACLE! WELL, LET US SEE."—The *Southern Medical Journal* has the following editorial with the above heading. It does not say in so many words that the *prominent citizen* had syphilis, but it gives strong reasons *to suspect* so. We think that other miraculous cures, in times gone by, could have been explained by the specific action of iodide of potassium. Once in awhile it would be as well to place a *prominent citizen*, without taking into consideration his high moral character, upon specific treatment when affected with paralysis, neuralgic pains, loss of vision, etc.

"The daily journals of this city, during the dearth of news items incident to the long, hot days of summer, attempted to sensationalize a wonderful restoration of vision and recovery from paralysis, in the person of a prominent citizen.

Attributing the recovery to the well known eloquence of one of our leading lawyers in part, and partly to a *wonderful* (*!*) remedy which the gentleman has been using.

"A few days after the occurrence, with an energy deserving as commendable, the peripatetic newspaper reporter favored the reading portion of our populace with a true copy of the remedy which had been used. It is as follows:

℞	Iodid Potassium, ...	℥ss.
	Fl. Ext. Ergot, ...	f℥ss.
	Glycerine, ...	f℥iss.
	Aq. Dest, . . .	q. s. ad. f℥iv.
S.	Teaspoonful in water after meals.	

"It is a fact well known to the veriest tyro in medicine, that a *specific* poison is one of the prominent etiological factors in producing paralysis in certain cases. And it is also as well known that potassium iodide is one of the most valuable drugs for eliminating said specific poison.

"*Ergo*, while one swallow will not make a summer, neither will iodide of potassium cure all cases of paralysis, although it is peculiarly valuable in some."

ANTISEPTICS IN THE PUERPERA.—As we agree with what Dr. Sim has to say in regard to Listerine, we copy it.

We have for some time past given our preference almost exclusively to LISTERINE as an antiseptic in the puerpera. We think it has *real* advantages over any other, while it certainly is much more acceptable to the patient. The objects to be attained in the use of vaginal washes after confinement are, first, to secure cleanliness, second, to arrest and prevent putrefaction, and last, but by no means least, to promote *early*, healthy action in the lacerated soft part—channels through which septic matter may be absorbed. The importance of this early reparative action can not be overestimated, as it is a well-known fact that with the healing process once begun, septic virus is repelled, in lieu of being absorbed, as is the case before healing begins or when the abraded surfaces have taken an unhealthy action. We had long employed the carbolic acid for the purposes above enumerated, but observing disagreeable constitutional influences from its use, we selected the LISTERINE, which has proven a powerful non-toxic antiseptic, promptly promoting the reparative process, and substituting an agreeable perfume for a noxious odor.—*Prof. F. L. Sim, M. D., Memphis College Hospital, in Mississippi Valley Monthly.*

THE AMERICAN ACADEMY OF MEDICINE.—It should be kept in mind that this Society meets in New York City in October. It is assuming more and more importance every year, the number of its members increasing by the constant addition of the educated men of the profession. So far its Fellows are largely of the East, which we very much regret, for in the West and South there are several hundred physicians who have the necessary qualification in having had the degree of A. M. conferred upon them by a duly authorized literary institution, and all such should feel it incumbent to become members.

We have explained, before, the objects of the organization, and it is not necessary, therefore, to recount them at this time. We will only observe that it is not the design to form a society for the purpose of creating invidious distinctions among medical men, but to encourage those who contemplate to enter the profession to first strive to obtain as thorough a literary education as possible, for the benefit of the mental training which will accrue to them.

STOP, THIEF.—We have been requested by the publishers of the *St. Joseph Medical Herald* to publish the following:

"A THIEF and FRAUD by the name of R. L. Douglas, a deaf mute, is traveling through the country receiving subscriptions for various Medical journals, for which he receipts in our name. We denounce him as an impostor, and warn the profession against him. Drs. Geiger & Hoyt."

Since receiving the above card we have heard of the fraudulent exploits of this deaf mute from other quarters.

THE TRI-STATE MEDICAL SOCIETY begins its session of several days, at Indianapolis, on September 20th. We have been kindly furnished with programmes of business and lists of papers to be read by the Secretary, Wm. Porter, M. D., of St. Louis. There is expected a very large attendance. The various railroads, we understand, will give reduced fare to those attending. Quite a number of the principal hotels have agreed to furnish accommodations at considerably reduced rates. We expect to be present, and hope to meet many friends.

OUR readers should not neglect to read the advertisement of Dr. Cathell's book in our advertising pages.

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Original Contributions.

Observations on Habitual Constipation, and Upon Cascara Sagrada as a Remedy for it.

BY T. L. WRIGHT, M. D., BELLEFONTAINE, O.

THOSE who had the fortune to attend the lectures of Dr. John Morehead forty years ago, on the practice of medicine, will remember that many were disposed to make light of his habit of occupying about one-fourth of his whole course in discussing the subject of constipation. But experience and years of annoyance have sufficiently demonstrated, to most of his auditors, that he was not in error when he labored so assiduously to expound the causes, symptoms, and consequences of habitual constipation, with all its concomitant troubles, miseries, disasters, and complications.

Since a record of disease has been kept, there has been a bad character given to obstinate constipation, as though it was a fruitful source of many of the most distressing of human maladies. It seems to have escaped notice to considerable extent, that the causes which are active in producing and sustaining constipation are active and effective also, and at the same time, in producing a multitude of simultaneous or, at least, kindred affections.

However the substratum of ganglionic and vaso-motor defect, upon which so many distressing morbid symptoms are founded, may be viewed by different observers, the fact that a common basis for many diseases really exists, and that it may often be found in a morbid condition of the sympathetic system, will hardly be questioned. While such nervous deficiency in function undoubtedly permeates a wide field of vital activity, its most obvious and obtrusive symptom is generally constipation of the bowels. And the superficial observer, particularly if non-professional, will usually attribute all his ill health to this state of constipation; not being in a position to recognize the fact that constipation is only one —although a prominent one—of a concatenation of effects arising, substantially, from a common and remote cause.

In order to relieve the constipation and its attending evils, resort is most commonly had to the ordinary cathartic remedies. It so happens that pure cathartics usually operate as cathartics *only;* that is, in a local and circumscribed manner; relieving the constipation and the distress immediately connected with its mechanical disturbances, affording at best an evanescent and slight relief to the fundamental nervous and vascular inefficiency underlying the whole difficulty. Obviously, with the cessation of the catharsis, the original trouble must once more begin.

Of the innumerable caravan of "bitters," "liver medicines" and other devices invented to cure chronic constipation that have come under my notice in the thirty years and upwards of medical business, I do not recall a single one that has given *permanent* relief and cure. At first there is the usual cloud of witnesses bearing testimony to complete cure. Very soon new certificates cease to come in, and the familiar faces of the old ones only greet the beholder after the lapse of a not very long time. Upon personal inquiry, the patient will declare that the preparation at first worked well; that the distress was greatly alleviated; but the additional declaration will be made, that the remedy is *no longer properly prepared* and has ceased to have its primary effect. At the same time an investigation will show that the patient has, upon the whole, been getting steadily worse in actual fact, notwithstanding apparent and temporary symptoms of improvement.

Now the question arises, is there any medicine in the market, which, while it gives satisfactory results at one time, promises also to act in such a way as to become permanently beneficial—truly curative? It is perfectly clear, from experience, that the simple purgative operation of any medicine is not enough. We must have certain beneficent and reliable therapeutic properties combined with the laxative qualities in order to secure the remedy so greatly desirable. With these preliminary remarks, I will give a short synopsis of two cases treated by me, wherein the now well-known

California bark, Cascara Sagrada (*rhamnus Purshiana*) was the chief remedial agent employed. I say the *chief* agent, because the form of administration was that called Cascara Cordial, as prepared by Parke, Davis & Co., of Detroit. This cordial is, in its sensible properties, handsome in appearance, and perfectly pleasant and agreeable to the taste; very important considerations indeed, especially the latter.

Case 1.—A lady, aged 54 years. Constipated habit gradually increasing in obstinacy for five years. Ordinarily impossible to secure an evacuation without the assistance of medicine. In consequence of the unpleasant nature of purgative medicines in general, she is apt to delay until an increasing and overpowering vertigo compels a resort to cathartics, in order to obtain temporary relief. The countenance is bloodless and corpse-like, with a tawny hue, and its expression is one of the utmost distress, almost of despair. The dizziness is so great that the patient is wholly unable to stand, or even sit erect; while violent palpitation of the heart contributes to the mental and corporeal uneasiness and incapacity. In this condition she is compelled to take for relief some one or other of the several active purgative remedies.

It is proper to say that this lady, notwithstanding her periodical spells of constipation with vertigo, etc., has seldom failed to take daily, either some suitable article of diet or some lauded remedy for constipation, or both. And although this practice often seemed to be of benefit at times, the truth is that she has, in spite of pills and pellets and bitters and elixirs of every conceivable description, been growing gradually and steadily worse all the time. Very often she would be confined to the house and bed for several days at once, with nervous exhaustion, as seen in her pallid color, absence of appetite and dreadful dizziness. I may say here that this patient is a connection of my family, and has been under my daily observation for years.

Thirty-five days ago I prescribed for her *twenty drops* of the Cascara Cordial, to be taken morning and evening. After the fourth dose she had an easy and satisfactory evacuation of the bowels, without pain or sickness. After two more doses she had two good evacuations in one day. She then took but one dose a day for four days. At this time she is taking 15 drops once a day, occasionally passing a day without taking any.

Let us now trace the effects of the remedy a little more in detail. Very soon after the first few evacuations, as early probably as the fourth or fifth day, the patient declared with evident satisfaction that she felt better than she had for a very long time; that she felt "natural" and like herself once more. This patient visited the Exposition in Cincinnati, involving 200 miles of railroad travel, about two weeks after the commencement of her treatment. For once, the motion of the cars did not make her dizzy or produce nervous headache; and she arrived at home in good health.

An early manifestation of the value of the Cascara Sagrada, in the case of this patient, was the speedy and complete clearing up of the color and general expression of the countenance. This took place in a very few days. The skin became healthy and clear in appearance, and still remains so; while the tone and elasticity of the entire organism are quite satisfactory.

I am aware that a report of this kind should not be made too early. Nor can it be expected that the remedy will, as a rule, come into relation with cases so clearly adapted to a rapid display of its best powers, as the one cited. But the application of the Cascara Sagrada in this case, where it immediately supplanted the habitual use of other highly praised drugs, has, by its remarkable operation, demonstrated through the contrast of its powers with the powers of other remedies, the fact that it does possess therapeutical properties, not only beneficent, but of *peculiar individuality*. The remedy, as a matter of course, should not be wholly withdrawn from the case for a considerable period of time.

Case 2.—Also a lady, 51 years old. This patient has, like the former, been under my observation for many years. Her case is obstinate constipation. She has been in the habit of using certain "bitters" a good deal, to keep her bowels in a soluble condition. She declares that her remedies—pills, pellets, bitters, etc., are no longer manufactured honestly. Upon the whole, she has been getting worse steadily for three years at least. For some months past she has complained of pain in the stomach, with giddiness and headache. But her principal complaint has been of weight in the stomach, belching and indigestion. The color of this patient was dirty looking and sallow, and the expression of her countenance was indicative of profound misery.

After repeated attacks of "biliousness," as she called it, depending upon constipation, which would yield only to powerful medication and which would return in a few days, or, at best, in a few weeks, she was seized five weeks ago with violent cramps about the stomach attended by constipation. Vomiting, which continued all of one night and part of a day, was also present. Indigestion had been troubling the patient several days, and she ejected from her stomach food which she had swallowed two days previously. As soon as these symptoms were relieved, and the patient began to move about again, I prescribed for her (thirty-one days ago) the Cascara Cordial in 15 drop doses twice a day. The effect now is very great improvement in the health of this lady. Her color has improved in a remarkable manner, and she is greatly benefited in every other particular. I am of opinion, however, that her improvement, while gratifying, is not yet so complete as in the first case reported.

There are several *chronic nervous maladies*, which, by fair inference, we may presume would be benefited by the prolonged use of Cascara Sagrada. I have some such now under treatment by that remedy, and when the proper time has come I will report the results, be they favorable or otherwise.

Translations from Our Foreign Exchanges.

Translated foı Medical News by Dr. Illowy, Cincinnati, Ohio.

TREATMENT OF ECZEMA BY NAPTHOL-KAPOSI.

There are two different indications for the employment of napthol in the treatment of eczema. When the eczema is idiopathic it should not be used until the malady has reached the stage of desquamation. In acute eczema, the medicament provokes a very acute irritation of the skin. In *eczema*, symptomatic of other affections, it can be employed at all stages. The mode of the application consists in the application of a thin layer of the pomade, of the strength of one or one and a half per cent., morning and evening, and covering it with starch powder. Or an alcoholic solution may be employed with which the skin is painted. But the irritation is greater by this method; it must be put on until the skin has a brown color.

In chronic eczema, where the epidermis is thickened, Kaposi employs frictions with the pomade of napthol of the strength of two to three per cent. In the eczema of the scalp where crusts are formed, the oil of napthol gives very excellent results. The oil is prepared as follows:

℞	Napthol,	1 grmm.
M.	Ol. Olivar. or Ol. Amygdal Dulc.,	100 grms.

This preparation can be used in ptyriaris, herpes tonsurans, favus, etc. In eczema marginata, paint the skin with the following solution:

℞	Napthol,	1 grmm.
	Glycerine,	5 grms.
M.	Alcohol,	100 grms.

Until loose brown crusts are produced. When the crusts have fallen off, the napthol is reapplied. The itching disappears at once. If the epidermis be thickened, the following pomade may be used:

℞	Napthol,	2 grms. 40 Ctgr.
M.	Emollient Ointment,	50 grms.

or the following preparation:

℞	Napthol,	1	gramm.
	Milk of Sulphur,	5	"
	Alcohol of Potass. Soap,	20	"
	Alcohol,	100	"
M.	Glycerine,	2	"

or the following:

℞	Napthol,	5 grms.
	Green Soap,	20 "
	Emollient Ointment,	50 "
	Wort in powder,	2 grms. 50 Ctgr.
M.		

Progres Medic. A. de D.

Hæmostatic Pills. (*Huchard*).

℞	Ergotine.	
	Quinia Sulphate,	*aa* 2 grms = 30 grs.
	Pulv. Digital.	
	Extr. Hyosciam,	*aa* 20 Ctgrms. = 3 grs.

M. Ft. pillul. No. XX. From 5 to 8 and 10 per day in diverse forms of hemorrhages, as metyorrhagia, epistaxis, hemoptysis, etc.

Pills Against Obstinate Constipation. (*Compounds*).

℞	Extract Colutea (Senna Germ).	
	Extract Rhei Tha Pontic.	*aa* 10–15 Ctgrms.

M. Ft. pillul. No. I. One to two pills in a tablespoonful of soup at the evening meal.

Suppositories Against Anal Fissures. (*I. Simon*).

Ole. Theobrom.,	q. s.
Extr. Belladonn.,	4 grms. = 60 grs.
Ungt. Populeum.,	8 grms.

M. Ft. suppositories No. XV. To be introduced into the anus and allowed to dissolve there on retiring at bedtime.—*Gaz. Medic. de Nantes.*

Cannabis Indica in Menorrhagia.

M. J. Brown considers cannabis indica as a specific in menorrhagia, and says that no other agent has ever given such good results. He can not explain the *modus operandi,* but believes that this agent causes a great flow of blood to the brain and diminishes the muscular tonicity of the heart. A few doses suffice to regulate the flow. The following formula is recommended:

℞	Tinct. Cannabis Indic.,	M xxx.
	Pulv. Tragacanth Co.,	ʒi.
	Spirit. Chloroform,	ʒi.
	Aq. ad.,	℥ij.

M. Sij. One ounce every 3 hours.

Dr. Batbo, of Castletown, Isle of Man, corroborates the opinion of Dr. Brown. He says: A long experience in the use of cannabis indica for menorrhagia, especially in the Indies, has convinced me that this is, in those countries, at least, one of the most efficacious remedies at our disposal; I believe that it is the remedy, *par excellence,* against this affection, unfortunately so frequent in India. Dr. Batbo has used it in a great number of cases with satisfactory results. He uses the tincture in the dose of 10 to 20 drops once or twice in 24 hours. Its effectiveness in controlling menorrhagia is so certain, that it may be used as a means of diagnosis where abortion is suspected, for it has but little effect on the hemorrhage from this cause. He has never seen the remedy produce any disagreeable physiological effect.—*Union Medic. Canada.*

Alimentation of Cholera Patients during the Period of Collapse.

It is a matter of observation that the least perturbating medications have given the best results in the treatment of choleraics. Here is another which seems rather a chapter out of a cook book —— "What we should seek to accomplish above all, in choleraic patients, is to sustain them during the period of collapse, and to have a little liquid enter their circulatory system. Little endeavored to respond to these indications by the intravenous saline injections. The attempts proved successful. Dr. Lownds (*Lancet*, July 24) suggests a simpler way—the frequent ingestion in small quantities of *raw soup*. The soup is prepared in the following manner: 250 grammes (about ℥viii) is chopped very fine; on this 540 grms. (about ℥xviiss) of distilled water, seasoned with 4 drops of muriatic acid, and from ʒss to ʒj of common salt, are thrown. The whole is well mixed. Allowed to stand about an hour and then strained through a horsehair sieve. The resulting bouillon may be at once diluted with about 250 grms. of water; it can not be kept longer than 12 hours in warm weather. The dose is from 60 ctgrm. (about 9 grs.) every half hour. This liquid thus swallowed passes into the circulation by a process of osmosis, and if the collapse date back no further than 5 or 6 hours there are good chances of rallying your patient, and during this time the dejections gradually diminish in number and the patient generally gets well. This medication, it is said, has given excellent results in the hands of Drs. Ogilvie and Cruikshank.

Iodoform Inhalations in Phthisis Pulmonalis.

After the manner of Prof. Semmola, Dr. Davezae employs iodoform in the treatment of phthisis pulmonalis. The method by inhalation, allowing the agent to come in more direct contact with the organs, is preferable to the administration by way of the stomach. He uses the following mixture, which must be placed in a vial with two tubes (an inhaler).

Iodoform pulv., ...	grs. xxiii.
Spirit. Terebinth, . . .	grs. 750.
Ole. Arachida, . . .	℥4¾ to ℥6¼.
Essent. Bergamotte.	
Acid Thymic, . .	*aa* grs. xxxvii.

The duration and number of inhalations is illimitable, but they must be well done, above all, and the thing is easy. All that is necessary is to respire at the same time with the nose, and with the mouth holding the mouth-piece (of the bottle) imitating the manner of cigarette smokers who swallow the smoke. Without this precaution the vapors do not reach the bronchi.

The first effect obtained by these inhalations is an augmentation of sleep, with, and perhaps as a consequence of, an attenuation of the cough and lessening of the expectoration.

In a word the most painful symptoms diminish, and it is a great satisfaction to the patient, and also to the physician, to have at least the means of assuaging, if a cure be impossible. —*Gazette Med. de Nantes.*

Treatment of Intractable Vomiting of Pregnancy by Bathing the Neck of the Uterus with a Solution of Nitrate of Silver.

Prof. Braun, of Vienna, recites a case to which he was called in consultation, a moribund woman who had reached but half the period of pregnancy, and was thus reduced to an extreme degree of feebleness by uncontrollable vomiting. The attending physicians had decided to deliver artificially as a last resort. Prof. Braun advised that before anything else was done, the neck of the uterus be bathed with a solution of lunar caustic 1 to 10. This was done, and the surface rapidly dried, so that the adjacent parts were not cauterized. The success of this treatment was so great and so immediate that an hour thereafter the patient was eating a veal cutlet with great gusto; the vomiting did not return. Prof. Braun believes that hypemisis must be erased from the list of indications for producing abortion. He has never seen a case of death result from uncontrollable vomiting. In France recourse is frequently had to abortion for the arrest of this symptom; it has been observed that vomiting is arrested in only about 40 per cent. of the cases, whilst in ten cases out of every hundred the operation results fatally.—*Union Medical, Canada. Bull. Therapeut.*

On the Methods of Administration of Pulverized Meat.

The use of pulverized meat is growing daily more extensive, justified moreover by its superiority over all other agents generally employed for *superalimentation.*

If, in reality, the peptones and pulverized blood administered in sufficient quantity possess equally nutritive powers, they have this inconvenience that they are easily falsified. The fraud may be easily discovered, it is true, but not by the physician who, to speak euphemistically, is a rather inexperienced chemist. Pulverized blood, on the other hand, can be judged as to real value by means of the microscope *by any one;* the only necessary condition being sufficient knowledge to put under the objective a preparation consisting of a little of the powder mixed with water. Here no falsification can pass undetected. The grains of which the powder is composed consist of fragments of striated muscular fibre, and the striation is almost inimitable. Any foreign substance (as a particle of any grain) will be at once detected by the eye as such; the observer may not recognize it as a particle of any grain, but he will certainly not take it *for a fibre of parallel and equal stria.*

From the first employment of pulverized meat, frauds have been practiced. It behooves the physician to know the reliable preparations and to recommend them. It is his duty to verify the character of the substance that he prescribes. . . . . The best preparation is that whose fragments, examined under the microscope, are the finest and contain the least amount of conjunctive tissue; and lastly, that which, besides these qualities, possesses the least odor.

In fact, pulverized meat manufactured for the trade exhales a very strong odor, recalling that of putrefaction, like certain peptones. We can conceive the repugnance of patients and the discredit into which this new product fell. A simple means of obviating this difficulty consists in adding a certain quantity of salycilate of soda; as the dose of the salt sufficient to absorb the odor is, relatively to the quantity of the powder, rather small, it may be considered as harmless. Still it is preferable, especially if large doses are prescribed (200 to 250 grms. per day), to use a powder absolutely pure. Moreover, if the powder is well made, the odor is supportable and sometimes nil.

But no matter, if the odor be there and be it ever so slight it always gives rise to recriminations. The name alone, *meat powder*, is sometimes sufficient to disgust some patients in advance. It is, therefore, necessary to mask this odor by some aromatic substance which shall please the patient, and this necessitates small culinary cares which the practitioner should not ignore. In the interest of his prescription and of his client, he should be able to prepare the mixture himself at least the first time, and thus prove to his recalcitrant client that an acceptable and even excellent aliment can be easily prepared with it.

Suppose, for example, the case of a patient who is to take daily 200 grms. (= 3000 grs.) of the powder, a quantity equivalent to 800 grammes of meat. This quantity will be divided into 4 doses of 50 grms. each.

In the first place, what shall be excipient with which the powder is to be mixed? The most simple is water. The powder being put into a bowl, water is thrown on it, at first in small quantity, drop by drop almost, stirring with a spoon so as to obtain a homogeneous paste; water is now poured on in greater quantity, but gradually, until the mixture becomes a liquid of the consistence of cream. If it is done otherwise, little grumous lumps are formed which are disagreeable to swallow. Then too tablespoonfuls of simple syrup or of sugar are added, and the whole aromatized with one or two tablespoonfuls of rum, of kirschwasser, or anisette—on this point of course the taste of the patient must be consulted. This preparation it now *almost* good and has this advantage that it can be prepared in a few moments; still it may be perfected. Thus in place of simple sugar, sugar aromatized with vanilla may be used. The odor of vaniline is so strong that it requires but a minute quantity to hide the meat odor.

For the very delicate, this preparation is not yet satisfactory; it is not sufficiently homogeneous. In place of water milk may be used, which emulsifies the powder so perfectly that the patient does not know that he is swallowing any powder.

But there are patients who do not like milk, and who can not resign themselves to swallowing a bowl of cream four times a day. For these the preparation is prepared thus: After preparing the aqueous mixture as directed above, the yolk of an egg is added. (If, however, the yolk and powder are beaten together, a compact paste is formed which water can not dissolve).

The substances which best mask the odor of the powder have just been cited, rum, kirschwasser and anisette. But any other liquor may answer the purpose providing it please the patient. The fault of the two first is that they are too alcoholic; they may be substituted by punch of rum or kirschwasser providing these can be obtained.

Lastly, for children, to whom alcohol can not be given in any quantity with impunity, it suffices to add to any excipient (milk or water) a half spoonful of essence of coffee, or the powder may be mixed with powdered cocoa which is boiled for a long time like a cream. Children on the whole are not so fastidious, and adults should take them as an example. —*Progres Medicale*

Dietetics for the Sick.

BY CHARLES M. SELTZER, M. D.

Read before the Philadelphia County Medical Society, September 12, 1883.
Reported for the CINCINNATI MEDICAL NEWS.

IN presenting this paper it is but justice to state that it has been prepared during the leisure of the past week as a substitute for one by another member, who was unable to keep his engagement. The subject has been selected more from the hope of eliciting some practical ideas, and a desire to emphasize its importance, than to announce anything new, or to exhibit the best paces of a hobby. Close attention to the methods of our most successful general practitioners convinced me that in dietetics was their stronghold. At the same time there was plainly to be seen a distressing lack of knowledge as to variety of foods and the preparation of them. In order to find out whether there was a practical remedy for these two great faults, I have gone over a thorough course of preparation of diet for the sick, under the instructions and guidance of Mrs. S. T. Rorer, in whom are combined the practical attributes of cook, chemist, physiologist and nurse, and I can safely say that if every member of this society were to do likewise, their *armamentarium*, success, and self-satisfaction in the practice of medicine would be increased many fold.

It would be almost an endless task to discuss the literature of this subject. Let us condense the opinions of physiologists, chemists, hygienists, and all others in authority, by stating that food is divided into nitrogenous or albuminous; hydro-carbons or starch, sugar and fats; and mineral, or the various salts of the alkalies. Of these the nitrogenous and minerals are the building materials, and the hydro-carbons are the heat and force producers. Food may also be classified into liquid, semi-solid and solid, and as the sum total of digestion is a matter of absorption and assimilation, it follows that the more liquid or dissolvable food is, the more readily will it be absorbed; hence, this is the form to be chosen when it is desirable to obtain nourishment at the least possible expense of organic action. There are also conditions in which bulk and solidity are necessary, and here we select the semi-solid or solid food, or even indigestible matter.

Nitrogenous food, in its natural combination with mineral matters, is mostly made absorbable by stomachic digestion —it rebuilds the tissues, and the waste and refuse are excreted by the kidneys and skin as urea and uric acid and its salts.

Hydro-carbons are digested in the mouth and small intestines, are burnt up by union with the respired oxygen, thus supplying heat and force to the body. The waste and refuse are excreted by the lungs and bowels.

About three ounces of nitrogenous and twenty ounces of carbonaceous food are necessary to sustain the life of an adult man in idleness. With these epitomized facts in mind, let us consider the importance and use of dietetics in the treatment of disease. The importance has been signalized by Bence Jones, who has said that the effect of diet is far beyond any known remedy. This fact has been so well known for the past century, that volume after volume has been written on "Dietetics," "Diet Cures," etc. A few of these have become standard works of authority, because of their scientific and exhaustive treatment of the subject, while hundreds of others have had but an ephemeral existence. All have had to reiterate the same facts, because very few new ones have been learned, and aside from the knowledge of artificially digested food, the student of a hundred years ago knew as well as the student of to-day about what diet was necessary for the sick. True, theirs was an empirical teaching; they knew nothing of the physiological actions of diastes, pepsin and pancreatin, but they were all the more practical for that. Our present scientific reasonings on digestion are but the formation of rules and theories for very old facts. The importance of the subject is made more manifest when we consider how much of the sickness that we are called upon to treat is the result of some error in eating or drinking, and as "removal of the cause" is the first step towards the promotion of recovery, it is easy to perceive how essential it is to know what constitutes proper and improper diet. Life depends upon diet, and the restoration of health depends upon the same principles as its preservation. Disease is the result of the violation of the laws of health, hence the first step towards recovery is to re-establish those laws; and as the material for repair and support must come from diet, we, as thorough physicians, should have a complete *practical* knowledge of dietetics, and a proper appreciation of their curative value. But almost a decade of experience among physicians compels me to acknowledge that this is not the case, and that the most lamentable deficiency is in the practical application of the subject. Nature's simple and easily understood remedies are either lost sight of or ignored in the blind endeavor to find a medical specific for every human ill, or to establish an ideal notion, theory or pathy. For the treatment of chronic affections, some good points may occasionally be gained by even observing the *modus operandi* of quacks, homeoquacks, and proprietary medicines, for in connection with either a depurative or inoperative preparation, such dietetic and hygienic directions are almost invariably *insisted* upon as would, in themselves, relieve temporarily, and perhaps permanently, some of the most obstinate cases.

The methods of dietetic treatment of diseases are as various as are the ills that flesh is heir to, but all of them contain some of the following principles as essential features. In acute diseases, *rest* is of primary importance; it is the fundamental principle of their medical and surgical treatment, and the same idea must be carried out in dietetics by remembering what part each organ serves in absorption, assimilation and excretion, and by avoiding such food as would cause the performance of that function. Of course this plan is only to be pursued while the disease is advancing, and as soon as recovery begins, there must be a gradual return to promiscuous diet, very little at first, just enough to slightly exercise the crippled organ, using as great care as we would in instituting passive motion in a limb that has been fractured. Nature enforces this principle by the loss of appetite that marks the onset of nearly all acute diseases. The dietetic rest of an organ does not necessarily imply a depletory diet, for while it is non-active, other organs may be made to perform a compensatory amount of work, and thus sustain or even increase the patient's vitality—so great is the versatility of our organic functions. It is upon this idea that we must act when we obey the command of Graves to feed fevers. In chronic diseases—those in which the natural course is direct from bad to worse, until death or some interposing process puts an end to them—every organ must be made to do its utmost; the whole system must be awakened to the threatening destruction. Herein lies the broadest field of action for our subject. No time should be be lost; food should be administered as frequently as assimilation and proper amount of organic rest will allow; the appetite should be kept active, by using liquid, semi-solid and solid food, prepared in such a variety of ways as to allow no charge of monotony or disgust. Surprise is frequently a useful element. Instead of leaving the patient to vacillate over his or her likes and dislikes, the nurse should be privately instructed how and what to prepare for each time, and how to serve it in the most appetizing manner. A valuable aid, usually lost sight of, is condiment. Think but for a moment how a savory dish will sharpen our appetites while in health, and I am sure you will perceive its stimulating influence upon a debilitated patient, to whom the flat and insipid preparations usually offered are loathsome or even nauseating. This disgust might frequently be avoided, and the amount of prescribed medicine be lessened. Many of the bitter tonics and carminatives of our materia medica are the same as are used in cookery, and are none the less efficacious in a palatable dish than in the nauseous pill or draught. Therefore let the delicate aroma of herbs, celery and bay leaves pervade the soups; use India curry on starchy foods, and when desirable add *Capsicum*, *Piper nigrum*, etc., to animal broths and substances. In so doing, if necessary, you can satisfy the qualms of your professional dignity by remembering that in catering to the palate you reflexly stimulate the organs of digestion.

Some articles of diet may be administered simply for their curative effect. A five-ounce cup of strong coffee contains about sixty-six grains of extract, or an equivalent of about two grains of *Caffeine*—quite sufficient to relieve a neuralgia, or a headache and sick stomach after a dose of opium. Beef tea, made red-hot with red peper, is the very best treatment for delirium tremens. A patient to whom I once administered such a dose, made so strong that I would not have dared to taste it myself, afterwards told me that it was the most refreshing and *cooling* drink he had ever taken. A London surgeon to the police told me that he had treated a hundred and fifty cases of delirium tremens with this remedy *alone*, and had not lost one. The use of *Chloral* in these cases is criminal, and many a death certificate of "delirium tremens" ought to be "heart failure from chloral poisoning." Mucilaginous teas and drinks made from gelatine, isinglass, Irish moss and flaxseed are very soothing to any inflammation within the digestive tract. Green vegetables are necessary to cure as well as prevent scurvy.

An old practitioner, who had spent his early professional life in the country, told me that when he first commenced practicing he used all the ordinary remedies in typhoid fever without any satisfactory results, until the introduction of turpentine by the late Prof. Geo B. Wood. In it he soon discovered a useful ally, not so much in the drug *per se*, but because convenience and time compelled him to use a thick flour gruel as a vehicle, and the patients were nourished sufficiently to live through the attack.

In the science and art of preparing sick diet there is a most lamentable lack of knowledge, especially among physicians. They know the preparations by name, but not by nature, and the only way to learn the latter is to don the apron and take a practical course from a practical and scientific cook. Such a course was inaugurated last winter in this city and in Boston with a very satisfactory result. The prospect for this season in this city is that the course will be very well attended. It is the only way to learn. I could read you receipts by the score, but it would be as useless as reading off that many medical formulæ.

DISCUSSION ON DIETETICS FOR THE SICK.

Dr. L. Turnbull in opening the discussion said: In reference to these questions my opinions are rather of the old-fashioned kind, and I believe in courses of instruction on cooking, which will be of much use to physicians. Dr. Benj. Rush was accustomed in his lectures to remark that "a physician should spend six months in a kitchen before entering upon his practical career." He desired to heighten the importance of a knowledge of the effects of food, and also the correct way of preparing it. All these advantages could be combined with a course on pharmacy. Physicians should learn how to make beef-tea, extract, etc., and similar articles. The important preparations of mush, of Indian and oatmeal, for instance, are rarely properly made. They should be prepared over night, so as to be thoroughly gelatinized; if made in the morning just before being served, they will not be digestible. In cases of very weak stomachs, many articles of diet may be peptonized with great benefit by using a small amount of a mixture of sodium carbonate and pancreatin, these being allowed to act for a short time at a temperature of about 80° F. Fairchild, of New York, prepares powders containing these peptonized materials in convenient amount. Such peptonized foods are like the old-fashioned preparations made with rennet and warm milk, and will be well borne by delicate stomachs. An article that is often wrongly prepared is barley. It may be softened and extracted with water, or it may be torrified so as to make a sort of malt extract. In the latter form it is very suitable as a substitute for the diastase-like principle of the saliva in cases where that secretion is deficient. It can easily be given mixed with other food as in puddings for instance.

This summer we have been very successful in relieving the irritability of the stomach and bowels of both children and adults, due to temporary indigestion, by substituting first barley-water alone, and after a time a wineglassful of barley-water with half a tumbler of milk, or its equivalent of condensed milk.

Too little attention is given to character of water. It is sometimes very bad, containing either injurious mineral or vegetable matter. The Boston water supply was much injured lately by certain sponge forms.

Butter is an article of food which is often impure, and besides objectionable substitutes for it are often sold. The mixtures of animal fats known under the name of oleomargarine and butterine should not be used in the preparation of food.

Beef-tea contains often but little nourishment, and in debilitated conditions, such as most cases of typhoid fever, beef essence made, not from the round of beef, but from the neck, in which blood is found, will be much more nourishing. A valuable form of beef-juice can be prepared by cutting up in pieces fresh beef and placing it under a block of ice until, by the pressure, all the blood has been extracted. With the addition of a little salt, it has been found to be retained by the most delicate stomach, and is very useful in cases of great exhaustion.

Dr. Albert H. Smith: The older we get the less disposed we are to rely on medicine and the more on diet. The remarks in the paper in reference to the importance of teaching physicians the art of cooking are deserving of full endorsement. On one point, however, I can not agree with the author of the paper. He seemed to advocate the use of highly stimulating food in acute diseases; in other words, the methods advocated by Dr. Thos. King Chambers in his fascinating work—a work, however, which has done great injury. Dr. Chambers' idea was that all disease was due to depression, and therefore the remedy was to stimulate the system. This is an attractive theory, but is not true. In cases of disease attended with high temperature, we only add fuel to the flame by the use of stimulating food.

Nature has admirable powers of taking care of herself, even under a starvation regimen. The use of a low form of diet, with refrigerants and depressants, may often be of the greatest benefit. I can look back on my early experience and recall cases in which, after operative measures, patients have been treated on the theory that plenty of pabulum should be furnished in the system, but such patients have perished. A strong patient will in such cases do much better on a low diet. Adhesive inflammation will be secured more satisfactorily on the low diet system.

Dr. J. M. Barton: I had under my charge, during three years, a patient who sustained life on about a pint of milk a day—never more than a quart a day. He was a physician who had his own views on questions of diet and therapeutics. Dr. A. H. Smith is right in his position as to the importance of low diet after operations, but in typhoid fever we have a very different indication. In the first case, *i. e.*, after operations, food frequently acts as an irritant, but in the low fevers the patient is exhausted and needs support.

Dr. Forbes: I am reminded of a compliment which I heard the younger Larrey pay to Orfila, the great French chemist. He said that he Orfila) was the greatest cook that ever lived. He said Orfila understood the disintegrating power of hot water. The effect of thorough boiling is most important, and since the days of Washington it has been an article of war that beans should be boiled for six hours. In the Crimea marked difference was seen between the French and English troops on account of the superior attainments of the French officers and surgeons in reference to many of the details of a soldier's life, and especially in cooking.

Dr. Seltzer, in closing the discussion said: I did not wish to include in the paper a discussion of the methods of preparing food, but merely to express the idea that it is important that doctors should know what to cook and how to cook. Many articles of food that are ordinarily prepared are unfit for the sick—can be cooked so as to be palatable and digestible. Mrs. Rorer's method of cooking liver is an instance of this: She exhausts it with water to remove the blood, then places it on ice until required, when it is cut into thin slices and toasted; sweetbreads are somewhat similarly prepared.

As to the use of stimulating food, we must judge Dr. Chambers' view by his own method. He draws the line between acute and chronic diseases, not making time the basis of the classification, but the tendency of the disease Acute diseases tend to recovery, and these he leaves undisturbed; chronic diseases tend to fatal results, and in these he uses a highly nutritious diet, stimulating when a depressed state exists.

In reference to the suggestions made by different speakers as to the importance of systematic instruction of physicians in the art of cookery, I may say that such courses are now being organized. I do not think that such instruction can be advantageously given with pharmaceutical teaching. A woman's taste and tact are essential to the art.

DISCUSSION ON AMPUTATION OF BREAST.

Dr. Baldwin: I remember that the late Dr. Atlee spoke of the effects of arsenic in carcinoma, and gave a number of cases in which he used it with the apparent effect of preventing the return of the tumor. I employed it in a case on which operation was performed in 1875, the patient being put on the use of Fowler's solution, continued until 1876, when the growth redeveloped and a second operation was done in 1878; no return has occurred to this time. The use of arsenic was discontinued after the second operation. During the formation of the second growth some trouble occurred in the lung, and cancer of that organ was feared, but it disappeared after operation.

Dr. Forbes: Dr. Leaman speaks of a period of efflorescence after operation, by which I understand a general development in different organs; this, as he remarks, does not always occur after first operation. In 1864 I removed a cancer from the breast of a lady. 1867 a hardened growth appeared in the cicatrix. It was not removed at once, as it was then giving no pain. In a short time, pain having developed, it was removed. It returned a number of times, and was each time removed until it developed an attachment to the interosseous cartilage and the muscles, and then I declined to remove it, although the patient very much urged me to do so. It continued to increase, and in eighteen months it involved the integument on the clavicle and sternum. Its condition was much aggravated by various caustic applications. Finally some irregular parties attempted to remove parts of the diseased mass, and this was followed by an efflorescence and a number of organs in the thorax and abdomen became involved. The patient died eighteen months after the last attempted operation.

I have heard Dr. Geo. W. Norris speak of this condition of efflorescence and its likelihood to occur in patients upon whom the cauterizing and escharotic treatment had been practiced. After such treatment he advised non-interference with the knife.

Dr. J. M. Barton: I have been interested in examining the advertisements and circulars of the empirics who claim to cure cancer without operating, and I find them reporting cures of cases of over forty years' duration. Now, as scirrhus, if left untreated, does not usually last more than four years, it must be that these long cases are benign tumors.

Even when the knife does not cure, it may prolong life—make it more tolerable. Operation offers us ten per cent. of recoveries. Dr. Leaman's case can be regarded as typical. The almost immediate return in the axilla is suggestive of the possibility that some affected gland had escaped removal. The removal of the entire breast in the earlier stages gives chance of total recovery, and in the later stages, with ulceration, operation is also useful; but in the intermediate periods, when the tumor is extensive and adherent to the adjacent structures, non-interference is best.

Dr. Albert H. Smith: I am glad to hear Dr. Barton advocate the repeated use of the knife; I believe in attacking the tumor every time it appears, for, at least, life may be prolonged and made comfortable, and the patient may be spared the suffering and loathsome discharges of the advanced stages of the disease, conditions which make her a source of misery to herself and to those around her. Cancer is doubtless a local disease, although a constitutional taint or tendency is probably inherited. Yet, if the tumor be removed early, a cure can be obtained. Dr. Leaman's patient did not do well because she did not follow the advice he gave at first. Removal of the breast should be complete; every reappearance should be met by operation. I recall the case of a patient from whom, at the first operation, no axillary glands were removed, but at the second twelve were taken out. Two more operations were subsequently performed; at the last one a very large amount of tissue was removed, but perfect union was obtained. Operation should cease when the condition is such that union by the first intention can not be obtained. In this particular I can not agree with Dr. Gross, who pays no attention to the size of the cicatrix or the question of union by first intention. The patient just referred to has been well during this summer, but is not beginning to manifest infiltration, and the condition is such that primary union can not be obtained, and I do not consider operation permissible. Under the modern advances in antiseptic surgery, operative interference in cases of cancer becomes simple and entails little suffering, and the after-treatment is not difficult.

Dr. Barton: The important point in operation is to make a complete cleaning out of the affected glands, and the obtaining of this must not be interfered with by consideration of the amount of tissue to be removed, or by the desire for primary union. Where much tissue is removed, the after-treatment is more simple than where flaps are made; no counter-openings are needed; no drainage tubes; no pockets of pus are formed; but little, if any, fever occurs; the wound usually goes on uninterruptedly to full cicitrization. In hospital practice I rarely have to see a case after operation, from which the breast has been thus removed. I can not recall a case in which the disease returned in the cicatrix so formed, though it often returns in the axilla. I remember a case in which three operations were performed upon secondary axillary growths in a period of four years—the last operation being amputation of the arm, ligation of the axillary artery, and removal of the growth—yet the resulting cicatrix from the first thorough breast operation remained perfectly soft and healthy.

Dr. Leaman: The case I have reported is an ordinary one, and the operation was certainly performed with ordinary care. The axilla was opened, and all present agreed that no glands were affected except the one removed. The first symptoms of return were shooting pains in the fingers, referable to a nodule near the insertion of the sterno-cleido-mastoid muscle, behind the left sterno-clavicular articulation. Subsequently the axillary glands were involved. A few small nodules have since appeared over the seat of the first tumor.

I think it important to remember that surgeons may make mistakes; that some of the cases diagnosed as cancer, and apparently cured by operation, may be benign tumors.

In my experience arsenic has not been of use in carcinoma.

A NEW USE FOR AN OLD INSTRUMENT.

Dr. Leaman called attention to the fact that he had found the hooked end of Dr. Gross's ear and nose instrument the best and safest means of rupturing the membranes in labor.

Remarks on the Chicago Beef Wire Skewer.

BY WM. R. D. BLACKWOOD, M. D.

Read before the Philadelphia County Medical Society, September 12, 1883.
Reported for CINCINNATI MEDICAL NEWS.

THE supply of good, wholesome meat to a large city is a problem involving many points of great importance. Many cattle are slaughtered within a few hours after reaching the abattoirs, before the feverishness and excitement resulting from a long railroad journey have abated, and the meat under the circumstances is not nearly so good or suitable for food as it would be even in healthy and prime animals, were it killed after a due time of rest. For a short time past beef slaughtered in Chicago and brought here in refrigerator cars, has attracted the attention of those able to judge the article according to its merits, and for quality it is pronounced fully equal to any heretofore put on the market, and far ahead of the great bulk previously sold in the city so far as a wholesome, sound and moderate-priced beef is concerned. The animals are selected from approved droves, and well fed, watered and housed for a definite and proper time before killing, and the product therefore is not only in its appearance perfect, but in the vital point of fitness for wholesome, nutritious and palatable food it is unrivaled.

Some weeks ago a sensational attack was made on this variety of beef in the interest of a clique of butchers in this city, who, knowing the value of the Chicago article, were afraid of the effect on their business when it became better known to the public, and the silliest pretext, amongst others, advanced, was a supposed danger to consumers from the novel skewers employed to fasten the labels on the hind and fore-quarters, these being of barbed wire such as I exhibit to you to-night. It was predicted that an epidemic of harpooned tongues, tonsils and pharynxes would ensue from swallowing unawares by consumers the numerous wire skewers concealed in the meat, and I am informed that for a time a serious falling off in sales actually resulted from fear on this point. You will readily see that any one who would try to gulp down a morsel of meat large enough to hide this fastener must at the same time be in a famishing condition, have the appetite of a tiger, and need lessons in table etiquette, to put it mildly.

The labels which are attached—one to each quarter only—are removed by the butcher before cutting up the meat, and could not, even if allowed to remain, fail to attract attention of both cook and eater. Mr. Bradley, of the Great Western Market, is the largest dealer in this city of this excellent beef, and he has kindly supplied me with samples of the barbs. The claims which he makes for the particular beef under consideration are worthy of notice, and his experience in business for some years past is unequaled in this city, and the enormous quantity which he distributes to a large section of surrounding country fully justifies the high value he places upon it. I am glad to confirm what he says, from personal experience in my family. The meat is simply delicious, and excels anything we have previously had from the best butchers of the city.

Selections.

Intussusception.

Dr. L. Emmett Holt presented a specimen with the following history:

A plump well-nourished child, aged two and a half months, was brought to his dispensary clinic on Monday, June 11, 1883. The child, the mother stated, had been quite well until Sunday evening. The bowels had been regular, and she had given it nothing but the breast. She had partaken herself quite freely of cabbage at noon, and to this in part she attributed the child's indisposition. It was taken at first with vomiting, which had continued ever since; first the contents of the stomach and afterwards a thin greenish fluid was ejected. The child was restless during the night, nursed but a few moments at a time, and slept very little. She had during the day, Monday, four quite large stools, which consisted principally of blood mixed with a little mucus. Straining and pain seemed to accompany the movements. On examination he found the child rather drowsy and listless; the clothing was stained with the greenish fluid she had been vomiting all day. The prostration was not specially marked. The rectal temperature was 103½° F. Unfortunately the examination of the abdomen was not recorded, if indeed one was made. The case was regarded as one of dysentery with a considerable amount of gastritis, and simple remedies were prescribed. He directed the mother, however, to report to him the following morning. She did not do so, and the case had quite passed out of his mind, when she came in on Thursday for a death-certificate, saying that the child had died early Wednesday afternoon.

She gave the following account of the case after her visit to the dispensary: The vomiting persisted up to the morning of the day of her death. For nearly twenty-four hours before, the vomited matters were of a brownish color and had a very bad, but not a fecal odor. After Tuesday morning absolutely nothing passed the bowels. The abdomen became very rapidly distended with gas, and the extremities cold. The child was restless, tossing from side to side much of the time. On Tuesday evening it was taken with a convulsion, which was repeated during the night. The following day the child died in convulsions after an illness of a little more than sixty hours. No other medical advice was sought.

From the history given he made a diagnosis of undoubted intussusception and refused to grant a certificate without an autopsy, which was finally permitted. As nothing bearing upon the case was found in the other organs he confined himself to the examination of the abdomen. Before opening this, careful exploration was made by palpation to discover, if possible, any tumor. From the great tympanites it was out of the question. On opening the cavity the small intestines, distended with gas to a size equal to that in a healthy adult, filled the wound. A small amount of reddish serum was found in the peritoneal cavity, without odor, perhaps a couple of ounces in all. The lower part of the large intestine was empty, and following this up he found, a little to the right of the spine and lying quite closely against it, in about the region of the hepatic flexure of the colon, a tumor about two inches long and one inch in width. The tumor was tightly held down by the mesentery. The intestine was healthy in its external appearance, not even showing much congestion. No evidence of peritonitis was discovered.

The tumor after removal was found to be perfectly solid to the touch. An unsuccessful attempt was made to force water through the obstruction from both directions. The distal extremity of the tumor was rounded, and showed a slit-like opening a little to one side of the middle. This was believed to be the ileo-cæcal valve, as was afterwards demonstrated. A probe was passed without much difficulty through the whole tumor, entering this opening. No orifice corresponding to the vermiform appendix could be found. The intussusception was exceedingly tight. A traction force of several pounds was required for its reduction, and some of the longitudinal muscular bands gave way before complete reduction was accomplished. The invagination began at the ileo-cæcal valve; about two inches of the ileum passed through this into the cæcum, which itself then was invaginated into the colon and then the colon into itself. The invaginated part then was composed of two inches of ileum, the cæcum and six inches of the colon.

One point of interest attaching to the case is the age of the child. Of somewhat over ninety cases of intussusception reported by Smith and West, only three occurred in the first three months of life. From three to twelve months is the most frequent period. Nearly one half their cases occurred between those ages.

The small size and the somewhat unusual position would have made the diagnosis of the tumor somewhat difficult, even before the great tympanites developed. The general symptoms, however, were so characteristic as to leave no room for doubt as to the nature of the lesion. From the difficulty experienced in the reduction post mortem it would appear that injections during life would not have been likely to succeed.

Dr. Leale referred to an autopsy which he made on the body of a child less than *one month* old, in which a similar condition was present, induced apparently by a dose of castor oil.—*New York Patholog. Proceedings. Medical Record.*

A Doctor's Diploma Before a Jury.

A DOCTOR named Royston had sued Peter Bennett for his bill, long over-due, for attending the wife of the latter. Alexander H. Stephens was on the Bennett side, and Robert Toombs, then in the United States Senate, was for the doctor. The doctor proved the number of his visits, their value according to local custom, and his own authority to do medical practice. Mr. Stephens told his client that the doctor had made out his case, and there was nothing wherewith to rebut or offset the claim, and the only thing left to do was to pay it. "No," said Peter, I hired you to speak in my case, and now speak. Mr. Stephens told him there was nothing to say; he had looked on to see that it was made out, and it was. Peter was obstinate, and at last Mr. Stephens told Peter to make a speech himself, if he thought one could be made. "I will," said Peter, "if Bobby Toombs won't be too hard on me." Senator Toombs promised he would not, and Peter began:

"Gentlemen of the Jury, you and I is plain farmers, and if we don't stick together these 'ere lawyers and doctors will get the advantage of us. I ain't no lawyer or doctor, and I ain't no objections to them in their proper place; but they ain't farmers, gentlemen of the jury. Now, this man Royston was no doctor, and I went for him to come and doctor my wife's sore leg, and he come and put some salve truck onto it, and some rags, but never done it a bit of good. Gentlemen of the jury, I don't believe he is a doctor any way. There are doctors as is doctors, sure enough, but this man don't earn his money, and if you send for him as Mrs. Sarah Atkinson did for a negro boy as was worth $1,000, he just kills him and wants you to pay it."

"I don't!" thundered the doctor.

"Did you cure him?" asked Peter, with the slow accents of a judge with a black cap on. The doctor was silent, and Peter proceeded:

"As I was saying, gentlemen of the jury, we farmers, when we sell our cotton, has got to give vally for the money we ask, and doctors ain't none too good to be put to the same rule. And I don't believe this 'ere Sam Royston is a doctor nohow."

"Look at my diploma, if you think I am no doctor."

"His diploma!" exclaimed the orator, with great contempt. "His diploma! Gentlemen, that is a big word for printed sheep-skin, and it don't make no doctor of the sheep as first wore it, nor does it of the man as now carries it; a good newspaper has more in it, and I pint out to ye that he ain't no doctor at all."

The doctor was now in a fury, and screamed out:

"Ask my patients if I am not a doctor."

"I asked my wife," retorted Peter. "She said she thought he was not."

"Ask my other patients," said the doctor.

This seemed to be the straw that broke the camel's back; for Peter replied with look and tone of unutterable sadness: "That is a hard saying, gentlemen of the jury, and one that requires me to die, or to have powers as I have hearn tell ceased to be exercised since the Apostles. Does he expect me to bring the angel Gabriel down to toot his horn before his time, and cry aloud: 'Awake, ye dead, and tell this court and jury your opinion of Sam Royston's practice?'"

"Am I to go to the lonely churchyard and rap on the silent tomb, and say to 'um as is at last at rest from physic and doctor's bills, 'Git up here, you, and state if you died a natural death, or was hurried up some by doctors?' He says ask his patients, and, gentlemen of the jury, *they are all dead!* Where is Mrs. Beasley's man, Sam! Go ask the worms in the graveyard, where he lies. Mr. Peak's woman, Sarah, was attended by him, and her funeral was appointed, and he, the doctor, had the corpse ready. Where is the likely Bill, as belonged to Mr. Mitchell? Now in glory, expressing his opinion of Royston's doctoring. Where is that baby gal of Harry Stephens? She is where the doctors cease to trouble, and the infants are at rest. Gentlemen, he has eaten enough chicken at my house to pay for this salve. I found the rags, and I don't suppose he charges for making her worse, and even he don't pretend to charge for curing her; and I am humbly thankful he never give her nothing for her innards, as he did his other patients, for something made 'um all die mighty sudden."

The applause was great. The doctor lost and Peter won. —*Sanitarian.*

Nephrectomy.

The operation of nephrectomy was performed in Dublin in August by Dr. Kidd, Master of the Coombe Lying-in Hospital, on a woman, aged twenty-eight. She was first admitted into the Coombe Hospital in February, 1882, when she gave the following history: In October, 1880, she suffered from a severe wetting, and, from that time, menstruation, previously regular and normal, had recurred at fortnightly intervals, being profuse and accompanied by rather severe pain referred to the hypogastrium. From the same date, the patient had suffered from great irritability of the bladder, being unable to retain urine for more than ten minutes at a time, whilst micturition was constantly accompanied by very severe scalding or cutting pain referred to the external orifice of the urethra. The urine was then healthy, and no cause could be found either in the urinary or genital tracts to account for the pain. Some time afterwards, the urine become distinctly purulent, and the mucous membrane of the bladder, examined by means of the endoscope, was seen to be very red and vascular. The passage of a sound into the bladder gave rise to great suffering, and therefore a permanent vesico-vaginal fistula was established by operation, without, however, being followed by the expected relief. In May of the present year, the patient again came under notice, suffering from the same symptoms as formerly, but a movable tumor was now felt in the right hypochondrium, in general shape and consistency resembling an enlarged kidney. In the situation of this tumor, the patient complained of much pain, aggravated by lying on either side. The diagnosis was made of a right kidney enlarged by abscesses. In consequence of the severe pain and the irregular hectic and wasting of the patient, Dr. Kidd decided on removing the kidney, and the operation was carried out, under bichloride of methylene, on July 12, and lasted altogether about an hour and a half. The incision was made through the anterior abdominal walls over the length of the tumor. The peritoneum was adherent over the front of the kidney; and there were several firm adhesions posteriorly also. There was a great number of separate abscesses found in substance of the kidney. Hempen ligatures were used to tie the pedicle, which consisted of the renal vessels, ureter, etc.; and the pedicle was then dropped back into the abdomen, a glass drainage-tube inserted, the peritoneal cavity carefully cleansed, and the wounds closed up. The patient at first seemed to rally well from the operation, but died twenty-four hours afterwards from collapse, without any hemorrhage having taken place.—*Med. Times and Gazette*, Sept. 8, 1883.

Localization of Motor Areas in the Brain.

MM. Charcot and Pitres have, in a second communication on this subject, taken into consideration destructive lesions of the motor area, the object being to prove that these always produce permanent paralysis, and lead ultimately to contracture of the paralyzed muscles and secondary degeneration of the spinal cord. The conclusions of their paper may be summarized as follows: Cortical lesions capable of giving rise to total permanent hemiplegia are always situated in the motor area, and they occupy the whole or, at any rate, a good part of the surface of this motor area. 2. Lasting paralysis of the arm and leg on one side, the face being unaffected, is due to lesion of the upper half of the cortical motor area of the opposite hemisphere. 3. Paralysis of the face and arm on the same side, the leg being unaffected, denotes a lesion of the lower half of the cortical motor area of the opposite hemisphere. 4. The cortical motor center which governs voluntary movements of the face is situated at the lower end of the opposite ascending frontal convolution. 5. The cortical center governing movements of the arm is situated at the middle third of the ascending frontal convolution, or perhaps a little above this. 6. The paracentral lobe is the seat of the center for movements of the leg; and 7. Destructive lesions, even when very extensive, if situated in the non-motor area, never give rise to secondary degenerations, whilst destructive lesions of the motor area are always accompanied after the lapse of a certain period of time by descending changes in the pyramidal tract. In a subsequent communication (August to the same periodical, the authors study the relations of partial epilepsy with cortical lesions. The following extracts will sufficiently express their views: "When during the interval between his attacks a patient who suffers from epileptiform convulsions shows no signs of any permanent paralysis, the lesion is either quite superficial, or else it is situated in the neighborhood of the motor area. When, on the other hand, the patient during the interval between his seizures is permanently hemiplegic or monoplegic, we should infer that there is situated in the motor corticle area a more or less limited destructive lesion. From the standpoint of diagnosis we must not take into account those transient, post-epileptic paralyses which come on immediately after a seizure, last from some minutes to a few days, disappear spontaneously at the approach of a fresh seizure, and are far from being uncommon. They appear to be the result of temporary exhaustion, of fatigue of the nerve-elements after the exaggerated activity which has provoked the attack, and have no diagnostic value as regards the locality of the cortical lesion determining the convulsions . . . It is, then, the paralysis which must determine the diagnosis. . . . The existence of epileptiform convulsions of the Jacksonian type ought to make us think of a cortical lesion, and the co-existence or absence of any permanent paralysis ought to tell us whether or not the lesion is situated in the area of the motor convulsions.—*Med Times and Gazette*, Sept, 8, 1883.

Physiological Action of Spinal Accessory Demonstrated by Injury of its Filaments.

REPORTED BY W. S. TREMAINE, M. D., U. S. A.

W. G. T., a DEPUTY United States marshal, was wounded in several places by a long, sharp penknife. A wound of the arm had become irritated by some application made to it by a quack. He then sent for me, and while examining his injuries I noticed he spoke in a whisper. He informed me that he had lost his voice immediately after receiving his wounds. Closer examination revealed a small punctured wound on the right side of the neck, into which a probe could be introduced for about an inch. An injury to the pneumogastric at once suggested itself. Examination with the laryngoscope revealed the state of the case:- the right vocal cord was immovable on phonation, due, of course, to paralysis of the arytenoid, lateral, crico-arytenoid and thyro-arytenoid muscles. A constant current was applied by means of a laryngeal electrode daily for some weeks. Mr. T., was obliged, by his business, to leave my vicinity. I advised him to go to New York and consult my friend, Professor Clinton Wagner.

Remarks.—It is not often that physiological functions are so accurately demonstrated in the living body, the point of interest being the localization of the injury to filaments of the spinal accessory.

In 1832 Bischoff demonstrated the influence of this nerve in phonation, afterwards confirmed by repeated and conclusive experiments of Bernard. These experiments were, of course, conducted on the lower animals.

The filaments of the spinal accessory reach the muscles of the larynx by means of the recurrent laryngeal; as section of the latter interferes with respiratory movements, and as there was, in the case under consideration, no disturbance of these, I have thought the case worth reporting, as demonstrating the physiological action of the spinal accessory in the human being.—*Buffalo Med. Journal.*

The Treatment of Chronic Bronchitis.

BY T. J. YOUNT, M. D., LAFAYETTE, IND.

"WINTER cough" has been known for untold centuries. Nebuchadnezzar no doubt had this disease, for the physicians after dosing him with villainous decoctions, nauseous infusions and diabolical extracts, turned him out to grass. They did not find a single specific or panacea in all the medical literature of their forefathers for chronic bronchitis. The chronic bronchitic, then, as now, was a victim to be pitied.

During the winter and spring months he sits in the house, in a snug corner near a roaring fire, huddling together his skin and bones lest they get separated and lost. He sits there in his corner with his cuspidor handy, morose, dejected and irritable to those around him. His face is pinched and his color yellow, he eats little and sleeps less, worried and worn out with cough. In the summer, like the groundhog, he comes from his hole, wrapped up in a thick ulster with fur collar, and cap drawn down over his ears, and his feet encased in large arctic overshoes. He walks slowly and swears rapidly at his ill-luck in having such a disease. He likes to tell how he feels, and gives all the blame for his illness to the weather and his liver.

The chronic bronchitic, like the white corpuscle, is of a very migratory character, migrating from one physician to another and traveling from one end of the earth to the other. It is seldom that you see a patient that has not been treated by at least half a dozen physicians, and he rarely tarries long with any one, but seeks new fields and medicines. In the treatment of this disease we must support our patient, ease cough and pain, promote digestion and appetite, and render substantial aid during an acute attack.

Suppose, now, you are called to see a patient during an acute attack, where there is a swollen condition of the bronchial mucous membrane, with scanty secretion, harassing cough, urgent dyspnœa and great pain. He sits upright, face livid, pulse weak and rapid, and the respiration shallow and frequent. He begs in Heaven's name for a moment's relief—for just five minutes' rest and sleep. You have all seen him.

Relieve this sufferer now and he is your life-long friend and patron. You must act, and act promptly, or all is lost. You are like the man in Texas, who, when he wanted a revolver, wanted it *awful* bad. Just so with you; you want to help the patient, and you want to help him very bad. Suppose you give him a dose of morphine, that will surely ease him, but the probabilities are that it would be permanent, and you could no doubt next day read his obituary notice. Opiates act first on the hemispheres, by dulling their sensibility; this dulling of sensibility extends to the medulla oblongata, which becomes paralyzed and your patient dies, simply because the carbonic acid in the blood fails to irritate this center of respiration and have it call on the expiratory muscles to assist in throwing off this accumulated carbonic acid poison. If it is, therefore, not safe to give opiates or chloral, what will you give? We must rely on respiratory stimulants, good ones that will not fail us. There are three well known stimulants that are considered perfectly reliable and potent, viz.: ammonia, strychnia and belladonna. Of the preparations of ammonia, I prefer the aromatic spirits or the carbonate. In very serious cases, twenty drops of aromatic spirits, or ten grains of the carbonate, with twenty drops Squibb's compound spirits of ether, given hourly or every half hour, afford great relief. If the heart is feeble and rapid, ten drops tincture digitalis should be added once in two hours. If they are nervous and want rest, give bromide of ammonia in one-half or one drachm doses as often as is needed. Rokitanski first found that strychnia was a potent respiratory stimulant. T. Lauder Brunton, J. Milner Fothergill, and H. C. Wood, have long recognized strychnia as a very reliable and rapid stimulant. Fothergill, in severe cases, gives as large as one-tenth grain doses of strychnia every four or five hours, and oftener if necessary. He says desperate cases demand desperate remedies. His favorite prescription for ordinary acute attacks is:

℞	Ammon. Carb . . .	gr. v–x.
	Tr. nucis vom . . .	*m* x.
	Tr. scillæ	ʒ ss.
	Infus. serpent . . .	℥ j.

M. et. sig.—Take every three or four hours.

He adds ten minims tincture digitalis to this mixture if the right ventricle is weak. Belladonna is also a reliable stimulant. It is of special value where there is general want of tone, giving rise to profuse night and day sweats. You have all given atropia for night-sweats of phthisis, and you have noticed that the patient, while benefited by the arrest of the sweats, was also greatly benefited in his breathing, breathing less rapidly, taking deeper breaths and less dyspnœa in walking about. In some cases where it is absolutely impossible to get relief from severe pain in the side by other means than opiates, give atropia and morphia combined.

I have often given persons suffering from a mild attack of chronic bronchitis the muriate of pilocarpine, in one-tenth to one-twenty-fourth grain doses, every hour or two with great benefit. It has many advantages over ipecac and squills. It is pleasant to take and does not nauseate. It is very prompt in loosening the phlegm, distressed breathing and annoying cough. It has a decidedly stimulating action on the skin, mucous membranes, heart and kidneys. Fothergill's father always taught him "never to give squills until the skin is moist and the phlegm loose, and always to give ipecac as long as the skin was hot and the phlegm tough." If such is a safe rule, and Fothergill says it is, then we ought to use pilocarpine in all acute stages of disease of the bronchial mucous membrane with great advantage. Inhalations and sprays may often be used with benefit. I have derived the most benefit in my own case from sprays of benzoate of soda, ten to twenty grains to one ounce, followed by prolonged sprays of compound tincture of iodine, ten to thirty or forty drops to one ounce. These used in this manner three times a week generally result in a decided arrest of the profuse secretions and start up a healthy action. Sprays of nitrate of silver, carbolic acid, tannic acid, potassæ chlorate and zinc sulphate can be used, either in sprays or inhalations, with benefit where the secretion is too profuse. The application of irritating liniments and solutions often scatter and relieve pains like magic. My favorite application is:

℞	Tr. iodini	ʒ ss.
	Ætheris sulphurici . . .	ʒ ij.
	Os. tiglii	ʒ ij.

M. et sig.—Apply as directed.

Where the patient is suffering from an acute pain in the side and is feverish and nervous, the application of an ointment composed of acidi salicylici ʒ ij.; morphia sulph., gr. j.; acid. oleici, ℥ j.; adeps, ℥ ss. should be made—applied three or four times a day, or oftener, until relief is afforded. By this application you avoid giving opium by the stomach, which, as a rule, destroys the appetite, impairs digestion, and renders the liver inactive, by arresting the normal secretions and perverting their healthy action. In cases of chronic bronchitis, where the secretions are scanty and dry, full doses of iodide of ammonia, say of twenty grains, three times a day. By combining the iodide of ammonia with copaiba, cubebs, eucalyptol or arsenic, you produce a decided effect upon the secretions, often arresting them and having a decided curative action. The liver should also be looked after in this climate, and its action should be assisted by an occasional dose of calomel, podophyllin or elixir wahoo. Quinia in tonic doses, taken for weeks, is of decided benefit. Fellows' compound syrup of hypophosphites, containing, as it does, quinia, with potent nerve-tonics, is a valuable preparation.

Gardner's syrup of hydriodic acid, a non-irritant preparation, containing, it is claimed, ninety-nine per cent. of iodine, has a decided curative effect on this disease. I have used it on myself and many patients, and have experienced almost immediate benefit by the arrest of the profuse secretions and cough. The only objection to it is the strong and pronounced metallic taste which invariably follows its prolonged administration, causing loss of appetite and consequent debility.

It should be given in teaspoonful doses three times a day at the commencement, and gradually increased to two or three teaspoonfuls three times a day, well diluted in Burgundy wine, porter or water. In my own case I have had the most prompt and decided benefit from Declat's syrup of nascent phenic acid. It is pleasant to take, and its action has in my hands been very pronounced. It should be given in larger doses than the directions on the bottle. I experienced no benefit until I had taken six drachms three or four times a day. Under the six-drachm doses in one ounce of whisky or a wineglassful of Hoff's malt, my light, harassing cough was relieved, the exhausting night-sweats ceased, the appetite improved, and sleep was rendered natural. In fact, under ten days' administration of the acid, more rapid and permanent improvement was made than ever before in any previous attacks. Its administration in such large doses should not be persisted in longer than two weeks at a time; then it should be suspended a week or ten days, and commenced and kept up as before, gradually lessening the dose as the disease disappears. I have often prescribed this syrup in obstinate coughs where relief was not obtained by the ordinary remedies, and have had good results.

To obtain good results you must give the syrup of the nascent phenic acid, and you must give it unsparingly. You will get no appreciable results from a half tablespoonful, and may be compelled to give it in two tablespoonful doses. In cases where there is great debility and no appetite, great advantage may be obtained from taking frequent egg-nogs or milk-punches. These may often be preceded by a wine-glassful of Hoff's fluid malt, etc. When there is great despondency and nervous prostration, decisive advantage may be had from ext. cannabis ind., gr. ½–j.; ext. hyoscyam., gr. ij.; quinia sulph., gr. ij.; taken three or four times a day. The sleeping-room and bed should be warm on arising and retiring, for the reason that the chill from getting into a cold bed and getting up in a cold room gives rise to severe and prolonged coughing. It is also a good idea to take a good alcoholic night-cap before retiring, as it tends to produce sleep and quietude. Patients with chronic bronchitis should not take alcoholics before going out into the cold air, for the reason that alcohol dilates the capillaries in the skin and makes the patient more liable to take cold. If he wants a drink let him take it after coming into the house. He should wear flannel underclothes the year round, and during the cold and changeable weather should wear a chest-protector.

It is advisable that the patient should take a trip to some equable and mild climate, such as San Antonio, Los Angeles, Aiken, S. C., or New Mexico, during the cold and winter months. New Mexico is to be preferred above all as the sanitarium of the world for lung and bronchial disorders. Let he who doubts this statement go and see for himself, and he will return a healthier and better man.

The Creator in his all-wise and all-powerful mind saw that sufferers from chronic bronchitis need a special habitat; he therefore gave unto the world and the sufferer the United States, because it had New Mexico in it, that one State created for no other purpose than invalids.—*Medical Record.*

Is Extirpation of the Cancerous Uterus a Justifiable Operation?

At the recent meeting of the American Gynecological Society, held in this city, Dr. A. Reeves Jackson, of Chicago, read a paper bearing the above title, in which he endeavored to show that hysterectomy should be discarded from practice for the reasons that it is a highly dangerous procedure, and that it holds forth no reasonable hope for permanent relief. A full abstract of the paper and of the discussion it elicited, which we had the pleasure of hearing, will be found in last week's issue of *The Medical News*, from which it will be seen that Dr. Emmet, whose personal experience is limited to a single case of laparohysterectomy, endorsed the views entertained by Dr. Jackson, as did, also, Dr. Van de Warker, of Syracuse. Dr. Sutton, on the other hand, regarded colpohysterectomy as an operation full of promise, and would not hesitate to have it resorted to were a relative suffering from carcinoma. Dr. Palmer, of Cincinnati, had always declined to perform it; while Dr. Baker, of Boston, would limit total removal to those cases in which the disease begins in the cavity of the organ. Hence, the Society may be said to be opposed to the removal of a carcinomatous uterus.

During the past few months important contributions to the statistics and details of the operation from the pens of Sanger, of Leipsic, Schatz, of Rostock, Demons, of Bordeaux and Schroeder, of Berlin, have been made to vol. xxi., 1883, *Archiv fur Gynakologie*, the *Archives Generales de Medecine*, for August, 1883, and the *British Medical Journal* for September 15, 1883, in which the authors, in common with the majority of German surgeons, regard the procedure as an eminently rational one in an affection so surely lethal when left to itself as carcinoma, claiming for it no more nor less than is to be expected from the extirpation of the tongue, the testis, the rectum, the breast, or the thyroid gland, for cancer.

The objection urged against extirpation of the uterus by Dr. Jackson, that it is a highly dangerous operation, is open to criticism. It is dangerous, but the mortality depends upon the manner in which it is done. Laparohysterectomy, or Freund's operation, is a frightfully lethal procedure. Of 93 cases collated by Hegar and Kaltenbach, 63, or 67.7 per cent., proved fatal, and the death-rate does not appear to be diminished by increased experience, since of 106 cases, inclusive of those just referred to, of which we have a knowledge, 72, or 68 per cent., died. The primary risks are, therefore, so great that abdominal hysterectomy should be reserved for special cases. Vaginal hysterectomy, on the other hand, yields the most promising results. To the 133 operations, with 38 deaths, collated by Sanger, we have to add 34 additional ones, of which 9 are from the practice of Schatz, 4 from that of Shroeder, 3 from that of Olshausen, 2 each from that of Dudon and Howitz, and 1 each from that of De Vecchi, Novaro, Guarneri, Pawlik, Muller, Demons, Mandrillon, Tauffer, Holmer, Studsgaards, Leisrink, Calderini, Paggi and Wile. Of the 167, 115 recovered, and 52, or 31.13 per cent., died, which is nearly as good a result as is shown by ovariotomy in the hands of American and European surgeons. Thus, of 5153 ovariotomies, tabulated by Agnew, 1502, or 29.13 per cent., perished. Like ovariotomy, vaginal extirpation is progressively improving in its death-rate. Thus of 52 examples collated by Haidlen, in 1881, 19, or 36.6 per cent., died. Of 81 analyzed by Czerny in 1882, 26, or 32.1 per cent., were fatal; while, as we have just seen, of 167 collated by us in 1883, 52, or 31.13 per cent., perished. In the hands of surgeons who have had the largest experience, the mortality has been still further reduced. Martin lost 8, or 26.6 per cent., of his 30 cases; Olshausen lost 7, or 28 per cent., out of 25 cases; and Schroeder lost 7, or 30 per cent., of his 23 cases, the 78 operations affording a mortality of 28.2 per cent. From this beginning, colpohysterectomy should be persevered in, with the hope that it will ultimately become a far more successful measure than it has proved to be up to the present date. With such flattering results, however, before us, we have no hesitation in taking issue with Dr. Jackson, and in declaring that vaginal extirpation of the uterus is not a highly dangerous operation, when the gravity of the disease for which it is performed is taken into consideration. When resorted to for other conditions than carcinoma, the success of the procedure is noteworthy. Thus of 13 operations for prolapse and benign tumors of the uterus, only 2, or 15.4 per cent., were fatal.

The second objection which Dr. Jackson adduces against hysterectomy, is that it does not cure the disease. Indeed, he does not appear to believe that a case of carcinoma was ever permanently relieved, as he says: "It is notorious that in almost all instances in which surgical operations have been done for the removal of cancers, they have been only of temporary benefit—if beneficial at all." The general surgeon could inform him that fifteen per cent. of carcinomata of the tongue, and nearly eleven per cent. of carcinomata of the breast, have been cured; and he should know that one of Freund's patients was free from recurrence for four years and five months after abdominal hysterectomy. The decision of this important question is not a matter of sentiment; it must rest upon a far larger experience, and a more rigid following up of each case. Of the final results of the vaginal operation, the information is meagre. In at least nineteen cases there was freedom from recurrence for periods varying from three to twenty-four months, two remaining well for three months; two for five months; five for six months; two for eight months; two for nine months; one for fifteen months; two for eighteen months; one for nineteen months; and two for twenty four months. In at least fifteen instances there was recurrence in from four weeks to ten months, or in four months on an average, and death ensued, on an average, in fourteen months after the operation, so that life was prolonged even in these fatal cases.

Is it true, as Dr. Jackson says, that "when the diagnosis can be established there is no reasonable hope for a radical cure?" To this we answer emphatically, No, and our proof lies in the results of partial operations, which are notoriously far less successful than when the entire organ involved is extirpated. Thus, Pawlik, in Heft. 12, 1882, *Wiener Klinik*, has published the statistics of Prof. C. Braun's removal of the vaginal portion of the uterus, for carcinoma, with the galvanic cautery. Of 136 cases, 33 were living free from recurrence for periods varying from one to nineteen years and a half after the operation. Dr. Baker, of Boston, also, in the discussion on Dr. Jackson's paper, brought forward some pregnant facts bearing upon this point. By a very ingenious operation, which deserves general adoption, he has removed the entire supravaginal and infravaginal portions of the cervix, as well as from one-third to one-half of the body of the uterus, and subsequently seared the denuded surface with the thermo-cautery, 30 times, and 6 patients were living entirely free from disease five years subsequently. If such results are attainable from partial operations, what may not naturally be expected from complete extirpation performed through the vagina at an early stage of the disease, when irregular and climacteric hemorrhage is its first indication?

We regret to have to disagree with the learned members of the Society, but the importance of the subject demands that we should present the other side of the picture to our readers. Operations upon the uterus for carcinoma must be persisted in, and we are inclined to endorse the views of Sanger, who holds that partial operations on the cervix should be reserved for those cases of malignant papilloma, in which the growth projects into the vagina, that supravaginal amputation of the body of the organ, after laparotomy, should be limited to those cases in which the diseased organ can not be removed through the vagina, and that vaginal hysterectomy should be the rule in all other examples of carcinoma.—*Phil. Med. News.*

Irreverence and Quack Advertisements in Religious Journals.

Our religious contemporaries, with a few conscientious and commendable exceptions, still persist in their old policy regarding medical advertisements. Indeed, they are adroitly expanding this peculiar line of industry so as to include the balder and grosser swindling schemes which promise the guileless reader a phenomenal return on an infinitesimal investment. They should certainly be congratulated on the enterprise which enables them to present in a single copy such multifarious opportunities for the subscriber to refresh his mind, body and estate. How the editors of these journals have rendered their consciences as elastic as their advertising columns must remain a matter of conjecture.

They can no longer plead ignorance as an excuse, for the expressed opinion of the medical press and the medical profession has been so decided and unanimous that these gentlemen must know that, as far as the medical nostrums they advertise are concerned, many of them are for disgustingly immoral purposes, and all of them are swindles of the most despicable and pernicious kind. If these gentlemen claim that the papers would not pay without this class of advertisements, they are simply serving "Mammon" for the glory of God. It would be interesting to know to which of the two masters they are more devoted. Most educated people are willing to accord them the benefit of the doubt; but there may, very likely, be some unsophisticated individuals of a more or less heathen persuasion who would be quite at loss to decide whether the salvation, whose joyful sound these journals proclaim, is to be considered from a religious or medical point of view. Well may these benighted "innocents" inquire of our editorial Fergusons, "Which is the bust, and which is the pedestal?" What a comfortably adjustable conscience that must be which will not allow a church fair to swell its assets by raffles and dancing, yet permits a journal to increase its income by a more palpable species of immorality. This peculiar kind of piety can not help but remind us of the familiar anecdote of the grocer deacon and his clerks, which we might appropriately paraphrase to suit the times, and imagine our clerical *confreres* making their rounds through the composing-room somewhat as follows:

"Well, Thomas, have you finished 'Yours for Health?'" "Yes, sir."

"And you, Richard, have you set up the Great Indian Secret for the Afflicted?" "Yes, sir."

"Henry, have you completed that Blood Purifier?" "Yes, sir."

"*Then let us have prayers.*"

A short time ago there appeared in one of these medico-religious sheets a report of a prayer-meeting at which the editor was present. In the course of the meeting a young man stated that he had lost his situation because he would not mark goods above their real value. He would not have to sell them, he must merely label them. He preferred to avoid an appearance of evil, and so, though he could ill afford it, resigned. Our brother's remarks thereon were fairly redolent with adulation. Their gist was, "Well done. Take no thought for the future, for the Lord will provide." Ah, friend, you may not label goods falsely, but you advertise them, knowing their labels to be false. The youth at the prayer-meeting would not allow a mote in his eye. Cast the beam out of thine own eye: the Lord will provide. "But you don't indorse your advertisements?" No, we should hope not. But had your young friend said to his worldly employer, "I can not mark your goods falsely, but if you will label them and give me some printed price lists, I will go on the street and hold a gospel meeting and distribute your lists with my tracts. I will not indorse your cheat, but I will advertise it," would you not have shattered his sophistry, and condemned this act as much as you lauded the other? Alas, sirs, "your actions do belie your words."

Now, brethren, let us follow out your policy a little further. We will suppose, with all reverence, that Christ had delayed his coming until the present century. Would you not deem it a most painful incongruity to see the Epistles of Paul interlarded with patent medicine advertisements? Is not the dignity and responsibility of your trust essentially the same as his? Would you not recoil with horror at the idea of beholding the tablet erected reverently for the loved ones you had lost defiled with the fulsome bait of the sharper and abortionist? Yet, because the tablet takes the form of an obituary notice—a tribute less lasting, perhaps, but surely as tenderly sacred to the bereaved—why is such an insult any less heartless or apparent?

If you are convinced you are justified in allowing these advertisements to appear in your columns, why do you not urge the universal application of your rule of conduct? Any patent medicine firm would print your whole paper if they could monopolize the advertising space. But why stop here? Let all the printing of the Church be done by these firms. If it is right and proper that Sunday-school lessons, hymns, sermons, the Scriptures themselves, should appear in your columns besprinkled with pile remedies and vermifuges, why not everywhere? It is perfectly practicable; try it. Think of the increased usefulness of your Boards of Publication, had they only to furnish the copy and not the cash to the printer! Some people with antiquated notions might feel a little squeamish about using a Hair Restorer Hymnal or a Kidney Cure Testament in their devotions, but your papers are rapidly eradicating such old-fashioned ideas of propriety. Advise your poorly paid ministers to free themselves and their church from debt by alternating the "usual notices" with extracts from your papers at so much per cent. extract. They would merely proclaim from the pulpit what you give as Sunday reading at home.

Now, you may declare yourselves shocked and term all this an irreverent tirade, if you please. The irreverence is yours, not ours. Your family physician may tell you of a shock from another quarter. We believe there are few men but what revere, or ar least respect, religion pure and undefiled; but any attempt to spread simultaneously the work of the gospel and the work of the world, the flesh and the devil, can only excite disgust. Can a journal, any more than a "temple," become in any sense a "house of prayer," while its outer court is but a "den of thieves?" Has the progress of the age permeated the Pilgrim's Progress of to-day, or have you forgotten the simple story of the "Prince of Dreamers?" We wonder what honest John Bunyan would think of the manner in which these modern pilgrims pass through Vanity Fair, on their way to the Celestial City. Our old friends, Christian and Faithful, when besought by the merchants to buy their wares, put their fingers in their ears and raised their eyes aloft, crying, "Turn away mine eyes from beholding vanity!" Our esteemed contemporary pilgrims, whilst zealously saying, "We will have none of your wares," add "We have been told your wares are evil and can not indorse them, but give us of thy lucre and we will advertise them." Would there were more John Bunyans alive to-day!—*Med. Record.*

The Treatment of Tuberculosis by Arsenic.

THE use of arsenic in pulmonary consumption is not new, but we are inclined to believe that it has been too much ignored in recent years. Comparatively recently, Buchner called attention to it in a paper on the "Therapeutics and Prophylaxis of Phthisis," and still more recently Kempner and Lindner have repeated his observations. The results of the latter are published in the *Deut. med. Woch.*, for August 22, and confirm those of his predecessors.

Tested upon well-marked cases with extended dulness and in some with well-marked cavities, Lindner noted that there was no essential alternation of the local condition, but a decidedly favorable influence was exerted upon the quantity and quality of the expectoration, which diminished to from one-fourth to one-half its original quantity, and from being purulent became more mucous and, in some instances, pure mucus. There was no influence upon the fever, or at least none which would justify the ascribing of an antipyretic property to arsenic, although, as a rule, the temperature was lowered, in one instance amounting to actual temporary apyrexia. The appetite was also decidedly increased, and with the increased ingestion of food came increased strength, so that the patients easily got out of bed, and remained for hours in the fresh air. Night-sweats were slowly influenced, and gradually disappeared. At the same time Lindner admits that these results were not permanent. He employed arsenic also in local tubercular affections, especially in tubercular disease of the bones and joints, in lupus and lymphoma. Here, too, there was some increase of appetite ascribable to the drug, but there was no evident change in the local disease.

We agree with Buchner that partially satisfactory therapeutics are better than no therapeutics; and if arsenic will produce the results above claimed for it in consumption, let us by all means avail ourselves of its effects, and give our dying phthisical cases one more chance of prolonging the life which is seldom else than sweet, let its sufferings be what they may.—*Phil. Med. News.*

Microscopy.

THE MICRO-ORGANISM OF CHOLERA.—M. Pasteur, who has just obtained a grant of fifty thousand francs from the French Chambers to send a scientific mission to Egypt to investigate whether the cholera be not due to the development of a microscopic organism in the human body, states, in a letter to the *Voltaire*, the reasons which induced him to recommend the Board of Health to send out the mission in question. He says: "I urged the sending out of this mission on account of the great progress that science has made since the last cholera epidemic respecting transmissible diseases. All diseases of this class that have been the subject of a thorough investigation, have led biologists to the conclusion that they were caused by the development in the body of man or animal of a microscopic organism, causing therein disturbances, frequently fatal. All the symptoms of the disease, all the causes of death, are directly under the influence of the physiological properties of the micro-organisms. What is needed at present to meet the requirements of science, is to ascertain the primary cause of the scourge. Now the present state of our knowledge indicates that we should direct all our attention to the possible existence in the blood, or in such or such an organ, of an exceedingly minute being, whose nature and properties would, in all likelihood, account for all the peculiarities of cholera, both as regards its morbid symptoms and the mode of its propagation. The existence of that micro-organism once ascertained would speedily settle the question as to the measures to be taken to check the spread of the disease, and might possibly suggest new therapeutic means to cure it." The mission consists of Drs. Roux, Thuillier, Straus and Nocard. M. Pasteur hopes that, by scrupulously attending to the hygienic precautions he has written down for them, the great danger they are incurring may be minimized.

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For some time past M. Paul Gibier, of Paris, has been studying the effect of a diminished temperature on the minute organisms destructive to human welfare. He claims that a prolonged temperature of a few degrees below freezing is sufficient to destroy trichinæ, and we now learn from the *Medical Gazette* that a similar statement may be made concerning the germ supposed to be the active agent in rabies. The mode of inoculation adopted by M. Paul Gibier consisted in drilling a small orifice through the median line in the frontal region of the skull of dogs, mice and rats. This hole sufficed for the introduction of a needle, through which the virus could be syringed into the arachnoid cavity. From his experiments, M. Gibier supported the view that rabies can be transmitted to the fœtus from the mother (rabbits). Cold was found to be an effectual attenuant of many viri, including that of rabies. Microparasitic organisms were detected in the cerebro-spinal fluid, as well as in the cerebral substance, notably the medulla oblongata. These consist of minute mobile granules, often arranged two by two and joined by a delicate filament. Sometimes a single granule was seen alone, and possessing a thin cilium; these were no doubt due to rupture of the bilateral figure, and resembled a nail in shape. The size of these elements, which could not be discovered in healthy animals placed under similar conditions, was about one-twentieth of that of a red blood-disc.

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The following rules for the examination of urine are given by Dr. Formad in the Louisville *Medical News:*

1. Sediment in the urine has no significance unless deposited within twenty-four hours. 2. Albumen in the urine does not indicate kidney disease, unless accompanied by tube casts. The most fatal form of Bright's disease—con-

tracted kidney—has little or no albumen. 3. Every white crystal in the urine, regardless of shape, is a phosphite, except the oxalate of lime, which has its own peculiar form, urine alkaline. 4. Every yellow crystal is uric acid, if the urine is acid, or a urinate, if alkaline. 5. Mucous casts, pus and epithelium signify disease of the bladder (cystitis) or of other parts of the urinary tract, as determined by the variety of the epithelium. 6. The urine from females can often be differentiated from that of the male by finding in it the tessellated epithelium of the vagina. 7. Hyaline casts (narrow), blood and epithelial casts signify acute catarrhal nephritis. Much albumen. 8. Broad hyaline casts, and epithelial dark granular, and oil casts signify chronic catarrhal nephritis. At first, much albumen; later, less. 9. Hyaline and pale granular casts and little or no albumen signify interstitial nephritis. 10. Broader casts are worse than narrow, as far as diagnosis is concerned, for the former signify a chronic disease. 11. The urine should be fresh for microscopical examination, as the micrococci will change hyaline casts into granular casts or devour them entirely in a short time. 12. Uric acid in the urine may in Trommer's test for sugar form a protoxide of copper, thus often deceiving the examiner in the belief that he has discovered sugar. Thus, when urine shows only a trace of sugar, other methods of examination besides the Trommer's test must be used—preferably the lead test. 13. The microscope gives us better ideas of the exact condition of affairs in the examination of urine than the various chemical tests. Therefore, the time has come when every true physician should know how to handle the microscope.

Hospital Clinics.

Given at the New York Hospital, by Prof. W. H. Draper of New York City. Reported and arranged by W. F. Becker, M. D., Wauwatosa, Wis.

No. 1. A Case of Psora.—The patient is a male, æt. 17 years; native of Germany; occupation, sailor. He has always enjoyed excellent health. Two years ago, from sudden effort, sustained an inguinal hernia. No history of gonorrhœa or syphilis. Temperate habits. Bowels have been regular, digestion and appetite good. Does not remember ever having eruptions when a child. Two weeks ago there appeared a vesicular and papular eruption between the fingers of left hand, with much irritation. At the same time there appeared a slight lump under left arm. Subsequently the right hand became the seat of a similar eruption, followed by the same condition at the inner side of thighs and elbows. The patient can not account for the cause of the disorder.

Examination.—At the present the eruption does not exhibit any distinct individual character of skin lesion, for erythematous spots, vesicles, pustules, blebs, papules, superficial ulcers and scales are all present. Vesicles between the fingers are well marked, exist around wrist and arms; several are well marked on genitals, none on face or neck; scratch marks disguise the character of others.

Remarks.—The disease from which this man suffers is scabies, or psora, or itch, as it is commonly called; it belongs to the group of parasitic skin diseases. It depends upon the existence of a parasitic called sarcoptus scabiei, or, more commonly, acarus scabiei, which produces a vesicular eruption. Later the eruption changes, assuming a polymorphous or multiform character, consequent upon irritation caused by its presence. In this patient the polymorphous form developed very rapidly, it being but two weeks since the disease began.

The history of this disease exhibits many curious facts, interesting from a scientific aspect. The acarus is an insect readily seen with the naked eye, which thrives on human integument, choosing for its invasion such parts where the skin is soft and tender, as on the insides of fingers and toes, in the flexures of joints, as about the ankle, wrist or axilla, on inner side of thighs, and genital organs. These regions are the seat of election of the disease. Sometimes in certain artisans the insect selects other parts of the integument, which are subject to pressure and warmth. Thus, in tailors or shoemakers, who sit much, or in men who ride much, the disease not infrequently develops in the skin of the buttocks. Usually, however, it begins on the hands, and only reaches other parts by their contact with those regions, generally next invading the genital organs, and later reaching other parts.

The insect does not thrive upon the surface of the integument, as do the cimex lectularius (bed bug), or pediculi, but bores its way into the epidermis, and makes its nest between the horny and mucous layers of the same, at a varying distance from the point where it penetrated. The canal thus formed is called the cuniculus. It can be detected only by close inspection, revealing itself by a grayish or whitish streak of a varying length, sometimes one-fourth of an inch or more. Here the female lays her eggs, and in the course of about ten days the eggs are matured, and reach the surface by the exfoliation of the epidermis. The young are there discharged, and meeting the male become impregnated, and in their turn burrow a new cuniculus, to repeat the process of their parent. The male acarus also burrows, but not so deeply as the female, only passing under the scales and crusts.

Symptoms.—The first symptom is that which is subjective and excites the patient's attention. It consists, as in this case, of a severe itching between the fingers. This irritation in some people of nervous temperament, is not confined to the part invaded by the parasite, but is universal—a general irritation existing, causing patients to scratch themselves everywhere; and the polymorphous form of lesion seen at the seat of the disorder is not caused by the ravages of the parasite, but subsequent and consequent to the scatching induced by the irritation of its presence.

The next symptom after the itching is the appearance of an eruption of a peculiar kind. This is, in its earliest stage, a vesicle with the acarian burrow or cuniculus running from it. This vesicle is after a time destroyed by scratching, and other lesions appear, following inflammation thus caused. The diagnosis is made from the polymorphous nature of the eruption, its location and the cuniculus, if seen. The crucial test, however, is the discovery of the acarus. This is done by inserting a needle through the cuniculus into the vesicle and turning out the insect. With the naked eye this has the appearance of a small white roundish body—under the microscope it develops more distinctive proportions. The discovery of the insect is often impossible, because of the destruction of its characteristic seat by scratching. It is claimed by many that without the discovery of the characteristic vesicle and the burrow leading from it, one is not justified in pronouncing the disease as scabies. This is too forcible an assertion, for sometimes the disease does not show this kind of vesicle; besides, it may be destroyed in the manner mentioned, and its distinctive character thus lost.

Scabies is contagious, as all parasitic skin diseases are, and it may be transmitted by contact with person or from wearing apparel. Its contagiousness to a certain extent depends on individual susceptibility. All persons are not equally susceptible to vegetable or animal parasites. It is necessary, besides the contagious element which they contain, that they have the proper host for their reception. The acari select their host—they do not find all congenial. Among the large number of persons surrounding the bed, many might shake the hand of the patient without being affected, while others could not do so with impunity.

Treatment.—This is very satisfactory when the diagnosis has been correctly made, but it must be carried out properly. The rational method is to remove the cause. For this a large number of drugs have been employed—carbolic acid, creasote, mercury, salts, and others; but of all parasiticides, sulphur seems to be the classical one for the disease. It is used in the form of baths, fumigation, or inunction. The last is the more frequent manner, and its details can be well set forth, perhaps, by describing the process adopted in Paris in the larger hospitals, where a large number of such cases are treated, particularly in the hospital of "St. Louis," which is devoted exclusively to treatment of skin diseases. Here there are several apartments. In the first the patients are undressed, and stand around a bin of soft soap. With this each patient rubs himself and his neighbor, the object being to soften the epidermis; then another apartment is entered, where they lie in hot baths for a period of from twenty minutes to half an hour. This is to still further favor the process of softening the integument. The third apartment contains in its center a tub, filled with sulphur ointment, in the proportion of about three parts of sulphur, one part carbonate of potash and eight parts of lard. Here the process of inunction is gone through with in very much the same manner as that of soaping; then the patients dress in their own clothing, which thus becomes disinfected. The entire process is repeated from three to five times, and the most obstinate cases are usually cured.

The same plan can be carried out in private practice, Care must be taken to make the application all over the body, as the acarus is migratory. The scalp, face and neck, where her incursions are scarcely ever found, are the only parts which may safely be excluded. The primary softening of the skin by the soaping and the bath is very important; without it the ointment is not efficient, for it opens the vesicles and the burrows and exposes their contents to the action of the sulphur. When the object of the treatment, viz., the destruction of the cause, is carefully adhered to, it generally gives much satisfaction.

Gleanings.

PYLORUS RESECTION.—Dr. Kleef (*Deutsche Med Woch*) describes a case of contraction of the pylorus following an ulcer, in which he performed a resection, and joined the duodenum to the stomach again. Silk was used for the sutures; antiseptic precautions were taken with the wound, which healed rapidly, and the patient made a good recovery.

COMA OF CARCINOMA.—Dr. Jaksch, in *Wien. Med. Woch.*, gives the account of a case of coma ending in death, caused by carcinoma occurring under the care of Dr. Nothnagel. The day previous to death the urine was examined and yielded no indican, sugar, or albumen, but a small amount of acetons. The acetonuria had lasted for some time. The post-mortem revealed cancer of stomach, lungs and pleuræ.

A SOUND IN THE ŒSOPHAGUS FOR THREE HUNDRED AND FIVE DAYS.—Krishaber reports a case of malignant disease of the œsophagus with stricture. In order to keep the passage open, an œsophageal tube was introduced and allowed to remain. The outer end was carried through the nose and attached to the forehead. After a time tolerance was obtained and the instrument was kept in until death.—*Deutsch Med. Woch.*

MICROCOCCI are now positively declared to be the cause of erysipelas by Dr. Fehleisen, Bergmann's Assistant (*Medical Record*). He has isolated them, cultivated them on gelatine through fourteen generations. He then inoculated rabbits, and also men, with the pure organisms, and produced in most cases a typical erysipelas. The inoculations were made in seven patients who were suffering from lupus, cancer and sarcoma. One case of lupus was almost completely cured, in another case the cancerous tumors disappeared, in another of fibro-sarcoma the tumor diminished in size. In the other four cases no especial effect on the tumor was noticed.—*Medical Review.*

Book Notices.

A Manual of Pathology. By Joseph Coats, M. D., Pathologist to the Western Infirmary and the Sick Children's Hospital, Glasgow; Lecturer on Pathology in the Western Infirmary, etc. With 339 Illustrations, 8vo. Pp. 818. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: R. Clarke & Co. Price, in leather binding, $6.50.

The study of pathology, we notice, is every year having increased attention. Thirty or forty years ago there was scarcely a work that was devoted to it exclusively, and twenty-five years ago there were but very few. But a few years ago, physicians were under the necessity to consult works on Practice, Therapeutics, Physiology, Surgery, etc., in order to study the changes brought about by disease, for what pathological knowledge had been acquired, by study and observation, was scattered throughout those works and had not been collected together in the form of a monograph. But, at the present time, works upon Pathology are numerous and are constantly increasing. Quite a number exhibit great learning, profound study, and extensive research. The subject has now become an independent department of medicine, second to none in importance.

The work before us treats the subject of Pathology more extensively than it is usually treated in similar works. The author begins with Affections of the Circulation and of the Blood, discussing Hyperemia and Anemia, Thrombosis and Embolism, Hemorrhage, Edema and Dropsy, and other subjects having relation to affections of the circulation and of the blood, and then passes to the consideration of Inflammation, and from it to Retrograde Metamorphosis, and then to Hypertrophy, Repair and Regeneration, etc. These subjects are treated in a very intelligent manner, exhibiting on the part of the author a very thorough knowledge of the subjects, and showing him to be a practical Pathologist who rests his instructions upon his own observation and experience. Although he has made use of the investigations of Virchow, Wagner, Rindfleisch, Cohnheim, Paget, Billroth, Rokitansky and others, yet, in most instances, before adopting any of their views, he has with scalpel, microscope, reagents and other means of exact observation confirmed their correctness. The work, therefore, bears the stamp throughout it of originality, and has none of the character of a compilation. It has a freshness consequently that is very agreeable, for it always imparts interest when it is felt that a writer is instructing from his own knowledge.

Medical students, as well as physicians, who take an interest in Pathology, and desire a work for study or reference that treats the subjects in the various departments in a very thorough manner, but without prolixity, will certainly give this one the preference to any with which we are acquainted. It sets forth the most recent discoveries, exhibits, in an interesting manner, the changes from a normal condition effected in structures by disease, points out the characteristics of various morbid agencies so that they can be easily recognized, etc. But, not limited to morbid anatomy, it explains fully how the function of organs are disturbed by abnormal conditions. There is nothing belonging to its department of medicine that is not as fully elucidated as our present knowledge will admit.

The author in treating of Tuberculosis, after mentioning that the disease may be contracted by inoculation and by inspiring air containing the sputa of tubercular patients, makes the statement that "tubercular material contains a virus which is capable of transmission to other living animals just as the syphilitic virus is." After giving the views of Villemin, Klebs and others, he says: "This matter we may now regard as finally set at rest by the recent discoveries of Koch, already confirmed by several others, that the virus of tuberculosis is essentially connected with a particular form of micro organism, a bacillus. These observations, establishing as they do the parasitic nature of tuberculosis, completely corroborate and carry to their due conclusion the views expressed in the preceding pages."

THE PHYSICIAN HIMSELF, AND WHAT HE SHOULD ADD TO HIS SCIENTIFIC ACQUIREMENTS. By D. W. Cathell, M. D. Late Professor of Pathology in the College of Physicians and Surgery of Baltimore. 8vo. Pp. 208. Baltimore: Cushing & Bailey. Price $1.25.

This work, although but a few months has elapsed since it was first published, has reached a third edition. This is a popularity almost unheard of; but it is really deserving of the success which it has met. The reader will find an advertisement of it by referring to the advertising pages.

Not a few physicians, who, during their studentship, closely applied themselves to their studies, improving every opportunity to extend their knowledge, and leaving nothing undone to qualify themselves for the profession they were about to enter, have learned, after commencing the practice of medicine, that something more than the qualification of knowledge was necessary for success. Such have not unfrequently witnessed others, possessed of much less learning, and far from being quacks, too, or employing unprofessional means, obtaining much better practices, and filling higher positions in the community. It is not those who sustain the best examinations while attending lectures, and are regarded the smartest students, who obtain the most lucrative practices when they begin business.

Hundreds of young physicians have wondered why they have met with so little success in obtaining practice. They feel they possess average talents and learning, but yet people do not call upon them when needing medical aid. Now we will advise all such, if they can spare the very small sum of $1.25, to procure the little book of Dr. Cathell and attentively read it. And, as they read it, let them inquire of themselves whether or not they conduct themselves and their business, as is advised to be done in it. We feel quite confident that if every physician scrupulously carried out in his conduct the advice found in it there would be far less failures with medical men in obtaining business. The great danger in those who would peruse such a work, in order to find the causes of their failure is, that the advice that would be most applicable to them, and the most important, they would not recognize its applicability and would consider it of the least importance. Take a young physician in practice, who is meeting with very poor success: It will be found, probably (we have one such in mind), that he is very untidy in dress, his face frequently is not clean, and his hands are always soiled. His linen often looks like as if it had been worn a week or ten days, so spotted is it with stains. His coat may not have holes at the elbows, and his pants at the knees, but their appearance would almost make one think that they had descended to him from a past generation, so threadbare are they in some places and glossy in others. While he wonders he has met with such poor success in obtaining business, knowing that he is well versed in the lore of the profession, no one else is at all surprised at the fact. He is, of course, jealous of his professional brethren, and is constantly indulging in invidious remarks about them, often asserting that they practice deceptions to gain business. He could hardly be made aware that the cause of his not succeeding was in himself. He can not understand that his want of neatness excites disgust and distrust of him in the sick room, and makes him offensive to refined people generally. So far from considering his slovenliness (to call it by no worse name) a demerit, he regards it as a merit, proving that his mind is not taken up with dress and idle display. He thus shows that he is unable to discriminate between these vanities and common decency in person.

If a young physician, or even older one, will take up Dr. Cathell's work and read it with an unbiased mind—believing that he can be instructed by one who has had large experience and extensive observation—and will endeavor to carry out the advice contained in it, so far as circumstances will admit, we feel confident that he will greatly increase his chances of success in securing practice. We do not wish to be understood that we indorse everything in the book. There are some points upon which we differ materially from the author, yet, take the teachings as a whole, we believe them to be correct and adapted to do great good if adopted. It is the only work of the kind with which we are acquainted, and one that is greatly needed; for a physician needs not merely to be instructed how to treat the diseases of patients, when he has got them, but he needs to be taught how to get patients.

ELEMENTS OF HISTOLOGY, By E. Klein, M. D., F. R. S., Joint-Lecturer on General Anatomy and Physiology in the Medical School of St. Bartholomew's Hospital, London, Illustrated with 181 Engravings. 18mo. Pp. 352. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: R. Clarke & Co. Price, $1.50.

This little volume is a member of Messrs. Lea's Son & Co.'s "Student's Series of Manuals," which is in process of being published. This series has been projected, as is stated, to meet the growing demand for concise and authoritative manuals on the various branches of medical science, in a cheap and portable form. It is also designed that the series shall also afford the practitioner works for speedy reference. When complete, the set will embrace fifteen pocket-size volumes of 300–500 pages each, profusely and accurately illustrated, and bound in red limp cloth.

The manual before us on Histology was designed at first by the author, a lecturer in one of the London medical schools, to embody in it only such matter as was absolutely required for the first year's student in the medical schools; but this plan was not carried out, since the book in some measure would be incomplete. The work, therefore, will be acceptable to the advanced student as well as the beginner.

It requires, really, but a comparatively cursory examination to convince one that it is most admirably adapted for the use of students in attendance upon medical lectures. While an excellent work for physicians for ready reference, yet to students attending college it is especially valuable. Its size will permit it to be easily carried in the pocket, from which it can be drawn at any time to be consulted or studied. While sitting in the lecture room, in the interval of lectures, or at other favorable opportunities, the industrious student, who is anxious to improve every moment, can have it at hand and consult its pages, or in his walks he can refer to it to refresh his mind.

Though so small as to be pocket size, it must not be supposed that it contains only a meagre outline of its subject—a few general principles, while valuable to suggest, really impart no knowledge. On the contrary there is contained in it a very fair detailed account of histology. The author, by not employing any unnecessary verbiage, by proceeding at once to treat his subjects without circumlocution or prefatory remarks, and by omitting all discussions of disputed points, has succeeded admirably in embracing *multum in parvo* —in producing quite a complete histological covering on a pages. Of course the type is small, but it is very distinct and read with ease.

WHAT TO DO FIRST IN ACCIDENTS AND EMERGENCIES. A Manual Explaining the Treatment of Surgical and other Injuries in the Absence of the Physician. By Charles W. Dulles, M. D., Fellow of the College of Physicians, Philadelphia; Surgeon to the Out-Door Department of the Presbyterian Hospital. Second Edition, Revised and Enlarged, With New Illustrations. 16mo. Pp. 119. Philadelphia: P. Blakiston, Son & Co. Cincinnati: R. Clarke & Co. Price, $1.00.

This little work has been so much appreciated that a second edition of it has been found necessary in order to supply the demand. In preparing this so much new matter has been added, and so many new illustrations, that the result is practically a new book.

Although the work has been prepared more particularly for popular use, yet the physician can obtain many excellent hints as to the best methods of procedure in many cases of emergency when immediate action has to be taken, and the means of affording relief are necessarily limited and must be of a temporary character. A surgeon well supplied with splints and all other necessary perquisites, might have no difficulty in treating a case of fracture when called upon for the purpose, the patient being at his own home, but yet be almost helpless in rendering assistance in such an accident when an individual has been injured by a railroad catastrophe, or by some other means, and there are none of the usual appliances or instruments at hand. Under such circumstances a medical man is oftentimes at his wit's end to know what to do, and yet he is expected to be able to do something. Now, this little book contains many suggestions, which, if it happens to have been read carefully, may occur to the mind and at once solve the difficulty, showing how essential aid may be rendered, for the time at least, without any of the usual scientific apparatus. The work is invaluable to intelligent men and women, who are not physicians, who wish to be able to render assistance to the suffering whenever they have an opportunity.

We find described the means of rendering assistance in drowning, suffocation, choking, when there are foreign bodies in the eye, nose and ear, in unconsciousness, fainting, hysterics, epileptic fits, convulsions, apoplexy, intoxication, burns, sunstrokes, heat exhaustion, lightning stroke, effects of cold, sprains, dislocations, fractures, contused, incised, lacerated and punctured wounds, splinters, poisoned and gunshot wounds, railroad and machinery accidents, hemorrhages, poisons, cholera morbus, vomiting, diarrhea, cramp, asthmatic attacks, nervous attacks, toothache, earache, poisoning with poison vine, etc.

The work is illustrated by a number of woodcuts.

CHEMISTRY: GENERAL, MEDICAL AND PHARMACEUTICAL, INCLUDING THE CHEMISTRY OF THE U. S. PHARMACOPEIA. A Manual on the General Principles of the Science, and their Applications in Medicine and Pharmacy. By John Attfield, F. R. S., M. A., Ph. D., of the University of Tubingen, Prof. of Practical Chemistry to the Pharmaceutical Society of Great Britain, etc. Tenth Edition. Specially Revised by the Author for America. 12mo. Pp. 727. Philadelphia: Henry C. Lea's Son & Co, Cincinnati: R. Clarke & Co Leather. Price $3.00.

This work is too well known to require an extended notice. It is used in nearly all the medical colleges of this country, and in very many of the academies and seminaries. It does not need to have its excellencies pointed out. That has been done a great many times, and they are understood and acknowledged by all who are interested in the science of chemistry.

The present (Tenth) edition contains such alterations and additions as seemed necessary for the demonstration of the latest developments of chemical principles and the latest applications of Chemistry in pharmacy. The work now includes the whole of the chemistry of the recently published United States Pharmacopeia, and nearly all of the chemistry of the British and Indian Pharmacopeias. The index contains eight thousand references.

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1. A TEXT-BOOK OF GENERAL PATHOLOGICAL ANATOMY AND PATHOGENESIS.—By Ernst Ziegler, Professor of Pathological Anatomy in the University of Tubingen. Translated and edited for English Students by Donald MacAlister, A. M., M. B., Member of the Royal College of Physicians; Fellow and Medical Lecturer of St. John's College, Cambridge. 8vo. Pp. 371. New York: Wm. Wood & Co.
2. THE TREATMENT OF WOUNDS. ITS PRINCIPLES AND PRACTICE, GENERAL AND SPECIAL. By Lewis S. Pilcher, A. M., M. D., Member of the New York Surgical Society. With 116 Wood Engravings. 8vo. Pp. 391. New York: Wm. Wood & Co.

The two works, the titles of which are here given, were received too late for us to give an extended notice of them. We will give them attention in the next number of the MEDICAL NEWS. We will mention, however, that the first one is the July number of *Wood's Library of Standard Medical Authors*, and the second one is the August number of the same. They are both most valuable works, and will undoubtedly meet with the cordial approval of the subscribers of the *Library*. It is evident that the publishers labor to maintain the high standard of the series from the character of the works they continue to select for it.

Editorial.

CONSOLIDATION.—We have the pleasure of informing our friends, subscribers and advertisers, that we have consolidated with the MEDICAL NEWS, commencing with this number, the *Medical Brief and Sanitary News*. This uniting of the two journals will greatly increase our already large list of subscribers, and make much more efficient and useful the consolidated journal than either of the others could be by itself. Advertisers will have the benefit of the circulation of both journals. One-half or more of the advertisers of the MEDICAL NEWS were advertising in the *Medical Brief*, and they will now reach the same readers at much less cost.

Dr. R. C. S. Reed the publisher and editor, relinquishes the *Medical Brief* to us, and retires from further connection with its publication, not on account of a want of prosperity on the part of the journal, for it had met with success and had earned the right to be regarded as firmly established, but simply because his many duties made it impossible for him to attend to its publication and editing. Compelled to withdraw from it, and finding it more advantageous to him to dispose of it to us, and permit it to be consolidated with the MEDICAL NEWS than to sell it to other parties to be continued as a separate journal, he closed with our offer and has put us in possession of it, "with good will," etc..

In conclusion we will remark that subscribers of the *Medical Brief* will be supplied from the present time with the consolidated journal. Although the subscription price of the *Medical Brief* was one dollar per year, while the price of the consolidated journal will be two dollars a year, yet paid up subscribers of the former journal will be furnished the latter to the end of the time they have subscribed for without additional charge. Those who have not paid in advance will be charged at the rate of two dollars a year from the present time. For the time these have been taking the *Brief*, for which they have not paid, they will be charged of course at the rate of one dollar a year. Contracts with the advertisers of the *Medical Brief* will be completed by the consolidated journal. Those indebted for advertising will settle with Dr. Reed for the same up until the time of the consolidation, for the subsequent time payment should be made to us.

All indebtedness contracted by the *Medical Brief* while it continued as a separate journal, will be paid by Dr. Reed, and bills for the same should be presented to him. Our responsibility commences with the consolidated journal, and, so far as the *Brief* is concerned, does not extend previous to that time. Our responsibility, however, in the case of the MEDICAL NEWS in the past, is not affected by the union of the two journals. Also, we will mention, that all contracts made with the MEDICAL NEWS as a separate journal, continue valid, and will be fulfilled with the conditions named.

THE CAROLINA TWINS.—At the time we are writing there is being exhibited at Harris' Museum, at Cincinnati, these celebrated women, who, together, form probably the greatest curiosity in the world—greater even than were the Siamese twins. In the advertisements of the museum, in which they are at present being exhibited, they are mentioned as if they constituted only one person named Millie Christine. But they can no more correctly be considered one person, although united together, than can any two persons who are not joined. The proprietor of the museum, we understand, in order to give countenance to his assertion that they were a *two-headed person*—a body with two heads—succeeded in getting a number of physicians of Cincinnati to sign a certificate, without previously having made a satisfactory examination, to the effect that from the shoulders downwards there was but a single body, with but one digestive apparatus, and a single set of abdominal organs; that there was but one nervous system, etc. We are surprised that physicians would allow themselves to be thus imposed upon. We would not have supposed that they would have made any statements over their signatures that they did not know to be true by actual examination. It is remarkable that they should have accepted any representations or descriptions as true, and so published them, of a showman, whose interest it was to exaggerate, without the confirmation of their own investigation.

In 1874, Dr. H. Besse wrote and published a little work entitled, "DIPLOTERATOLOGY: OR A HISTORY OF SOME OF THE MOST WONDERFUL HUMAN BEINGS THAT HAVE EVER LIVED IN DOUBLE FORM, AND A SCRUTINIZING VIEW INTO THE MARVELOUSLY STRANGE FREAKS OF NATURE, AND CAUSES OF THE SAME." In this book are described MILLIE and CHRISSIE SMITH, who constitute the "Carolina Twins," or *Christine Millie*, of Harris' Museum, Cincinnati. They are negresses, born of slave parents, in Columbus County, North Carolina, July 11th, 1851. The description which we copy from the work constitutes a report of them by Dr. Wm. H. Pancoast, of Jefferson Medical College, a reliable medical gentleman well known throughout this country, and who would not make a statement that he did not know to be strictly true. He reports as follows:

SPECIES 1st.—Pygopagus Symmetros.

DERIVATION.—*Pyge*, the nates, *pago*, I fasten, *syn*, with, *metrein*, to measure.

DEFINITION.—Two individuals more or less complete, separated as low as the pelvis, by the lateral or posterior portions of which they are united; genitals double. In the higher degree there are two umbilical cords, which are normally attached respectively to each abdomen. Vital organs independent in the type.

GENUS 1st.—Pygopagus.

ORDER 1st.—Terata Catadidyma.

DERIVATION.—*Teras*, *teratos*, a monster, *Kata*, down, *didymos*, a twin.

DEFINITION.—Duplicity with more or less separation of the cerebro-spinal axis, from above downwards, under the general head of *diploteratology* or *diploterography*, the description and diagnosis of special forms of double monsters.

Under this heading, as the proper place in the classification of a compound monster of duplex development, as so admirably set forth in the excellent article by Dr. G. I. Fisher, of Sing Sing, N. Y., in the "*Transactions of the State Medical Society of New York*," I would report my observations upon the "*Carolina Twins*," or the 'double headed girl,' as they have been called.

This case of *Pygopagus Symmetros* came under my professional care, January 18, 1871, while it was on exhibition in this city, in consequence of an abscess forming near the genitals, as stated by Mrs. Smith, who is the guardian of the twins. In the course of their treatment, I was enabled to make the following observations, and to have them confirmed by my medical friends whom I had the opportunity of inviting to be present. After great persuasion and with the kind assistance of my friend, Dr. F. F. Maury (owing to the modesty of the twins and the natural reluctance of Mrs. Smith), a photograph of them was taken. They clung to their raiment closely, and it was only by earnest entreaty that they were willing to compromise by retaining a partial drapery. Their parents are still living. They have had fourteen children, the twins being the ninth birth. The mother can assign no cause for the monstrosity, nor did she ever see the Siamese twins. Dr. P. C. Gooch, in the *Stethoscope* of July, 1852, describes the mother as a very stout negress of thirty two years of age, very fat and of a large frame and pelvis. The children were noted as being remarkably healthy and sprightly, perfectly formed, and united at the sacra. The band of union seems to be chiefly cartilaginous, but the sacra are so closely approximated that some suppose there is osseous union of them. When I was called to see the twins, I found them very intelligent and agreeable, standing four and a half feet in hight, and so closely united that they were clothed in one dress large enough for them both, with sleeves for the four arms and a silken sash tied around their common waist. The frontal development of each was remarkably good, and though their complexion was of the dusky brown color of the American negro, and their noses and lips possessed the characteristics of their race, yet the expression of the faces was so amiable and intelligent, and their manners were so well bred, that they produced a pleasing impression upon me. They sing duets and play upon the guitar very pleasantly, their voices being quite melodious. Though joined at the inferior parts of their bodies by the contiguous sacra, and originally formed so as to be placed back to back, yet they have from their birth instinctively twisted themselves, as if the band of union had yielded, and their spines have assumed a gibbous form under the exertion, permitting them to assume almost a lateral position, like an expanded V, thus facilitating their movements. They walk each partly sidewise, the apex of the V advancing, their main support being from the outer limbs, steadied and guided by the weaker inside legs. Their movements are very graceful, and all the curves of their bodies yield harmoniously to their gliding step, as they walk to and fro, run with swiftness, or dance the schottische, polka or waltz.

They can either walk easily or stand upon the outer limbs, holding up the inside ones, using the outer limbs as in the case of a single individual. In running and walking they rest upon the outer limbs as they simultaneously swing forward the inner ones, and then standing on the inner ones, swing forward the outer ones. Owing to the obliquity of the junction, the inner limbs are somewhat shorter than the outer ones; and, as they move, they step upon the ball and toes of the inner limbs, which adds much to the elasticity of their step. As they stand fronting me, Millie is on my left hand and Chrissie on my right. Chrissie is larger and more developed than Millie, who was quite weakly as a child, but is now strong and hearty, owing to the support she has received from her connection with her more robust sister. Chrissie can now, as she has always been able to do, bend over and lift up Millie by the band of union. This she was in the habit of doing as a part of the exhibition, but as Millie is now so strong and well developed, I advised them to avoid it as a practice, so as not to injure Chrissie's health. Millie, though the weaker physically, has the stronger will, and is the dominating spirit, usually controlling their joint movements, thus preserving the necessary harmony. Mrs. Smith tells me that when they were little it was somewhat difficult for them to understand this, and individual desires sometimes led to little struggles and quarrels for supremacy. I noticed that what required only the exertions of one to perform, one alone did, as shutting the door or taking something from the mantel or table. But when their single plate was placed upon their dinner-table, then each used both hands to carry the viands to their respective mouths for transmission through each esophagus to their separate stomachs, with evident satisfaction to each individual. Each brain acts separately, there are two intelligences, as shown by their conversing with each other, and they carry on independent trains of thought, as is obvious from their talking at the same time with different persons upon different subjects. In consequence of habit, their functions generally work simultaneously. They are usually hungry at the same time, and generally desire the same food and drink, both drinking a great deal of water. Their habits are very much alike. They generally sleep and wake at nearly the same moment, though one can sleep independently of the other; and sometimes one turns over the other one in bed without waking her. They defecate and urinate at the same time, though one may have a diarrhea without the other suffering any pain; or one may be bilious without the other being so, as I found Millie so suffering on one occasion, while Chrissie was not. I ordered Millie a cathartic pill, thinking that she alone required it, but I was told that each had been given one, with the best effect, and I found Millie relieved of her headache.

I believe Millie could be sick at her stomach without Chrissie being so, and *vice versa*. It is reported that one suffered more in teething than the other, and that Millie had the diphtheria, but not Chrissie, and that they both had fever and ague at the same time. Chrissie, on their left, is a little taller, stronger and more robust than Millie, on their right. As far as can be recognized there is no transposition of viscera. The hearts are nearly in their respective places, and, allowing for the curvature of their spines, there is but the slightest deviation of the respective apices to the median line. The heart and lung sounds are normal. The individuality of each twin was again shown on examining the pulse. On several occasions, Millie's pulse was found to be from two to twelve beats quicker than Chrissie's. At one time Millie's pulse was ninety-six beats and Chrissie's eighty-four; on another occasion, Millie's was eighty while Chrissie's was sixty-eight.

The band of union I measured and found it to be 26 inches in circumference. At five years of age, according to Dr. Ramsbotham, it was 16 inches in circumference. The distance between the top of the crest of the one ilium to the other, at its greatest breadth on the back, was 14½ inches. On touching the left leg of Millie, the sensation and number of touches are recognized by Chrissie, but not the spot; and on touching the right leg of Chrissie similar effects are produced.

In company with Dr. J. Murray Barton, I applied an æsthesiometer on the inside of the leg, first of Chrissie, and then of Millie, and found the limit of tactile recognition to be about 2½ inches. On the 8th of March, 1871, I invited Dr. Wm. Pepper and Dr. R. M. Townsend to accompany me in my visit. We placed a pole of a Faradic current in the hand of Millie, another on the outside of the outer limb of Chrissie. They both felt it. On placing one pole in Chrissie's left hand, and the other on external popliteal nerve of Millie's outside leg, and the other pole applied at the same point on Chrissie's outside leg, powerful contractions were simultaneously made by the peronei muscles of both outer limbs. The sensation was recognized from the points of application down to the ends of each one's toes. When the poles were applied to the middle line of the connecting band and the external popliteal nerve of Millie's outer leg, both felt the current, Chrissie feeling the current in Millie's leg, Millie's muscles contracting powerfully.

One pole being applied on each dorsal region, the current is at once recognized by both. One pole placed over Chrissie's dorsal region, another over the patellar plexus of Millie's outer leg, a current is established that they both feel, and powerful contractions of the muscles of Millie's thigh are produced. We asked, one at a time, to try to lift up the leg or legs of the other, but this neither one could do; each one having complete control, however, over the limbs belonging to her trunk. I applied the point of a lead pencil to the top of the band of union at the exact middle, and each recognized the sensation; but removing the point on either side less than one inch, only the one touched recognized the sensation.

The Carolina twins micturate simultaneously, it is reported; but I believe that the consentaneous micturition and defecation are the results of habit.

The most interesting point in the consideration of these cases of duplex formation is, perhaps, in reference to their embryogeny. The most possible theories are, that these duplex existences are due either to the accidental fusion of two embryos at some early period of their development, or to the existence of a double yolk, or to the proximity and relative position of the neural axes of two more or less complete primitive traces, developed in the vitelline membrane of a single ovum, as suggested by Dr. G. J. Fisher, or to a hypertrophic power or process of budding, or to the fissuration of the cerebro-spinal axis at an early period of fetal life, as suggested by Dr. H. R. Storer. We must first, I think, explain the development of these duplex formations before we can again discuss the question whether the quality of monstrosity be original to the ovum or acquired by it.

There is no doubt but that the death of one of those twins will be followed very soon by the death of the other. If the shock and fright did not kill the other on the death of one of them, the blood poisoning which would result certainly would. Their union is a strange freak of nature which it is difficult to account for.

A much stranger phenomenon of *duplicity* than the Carolina Twins was that of Minna and Mina Finley. These twins were born in Morrow County, Ohio, 12th of October, 1870.

Dr. H. Besse, in his work, describes them as follows:

We found two perfect heads, one a little larger than the other, but both well formed, and developing a fine mental organization;, two perfect, well-formed necks, shoulders, arms and bodies; to the umbilicus, or navel, which was one in common, two hearts, two stomachs, and every evidence of two perfect beings and separate existences, until they were united at the navel, and here, at this point, the two bodies unite and form one body, and the genital organs are that of one female child. On one side are two well formed legs, extending from the side of the body at an equal distance from each head, and at right angles from the body, perfect in all respects, with the exception of a slight twist in one of the feet. At the other side of the body, a double leg, or two legs united or blended into one; this extended also at right angles. This double leg terminates in a double foot, on which are eight toes and two heels. This child, or these children, when lying on their backs may be described as forming a cross; that is, the body or two bodies united, with a head at each end of the common body, forming one straight line, and the two sets of legs, projecting at right angles from the body, form another straight line. [We regret we can not furnish the cut which is in Dr. Besse's book. According to the cut, as they lie in the cradle, one head is at the head of the cradle, the other at the foot—the body passing from one to the other. From the middle of this common body, connecting the heads, on each side, project two legs with feet.] One child would sleep while the other would be awake, or both would sleep at once or be awake at once. We noticed that when one of the children would wake, the arms as well as the perfect leg belonging to, or nearest the head of that child, began to move, and this, also, when the other *end* or child would wake, then *its* two arms and one perfect leg would move. Indeed, each child had the entire control of the perfect leg nearest to it, while either one had partial control of the double leg. For some time after its birth the smallest one was a little sickly and did not feel well, but at the time of our visit it fed as well as the other, and appeared to be doing finely.

There existed a common rectum and anus into which the intestinal canal of each terminated, and through which the excrements of both were passed. Although defecating through a common orifice, they would defecate at different times, as shown by the separate straining. But our space will not permit of giving further details.

Death of Dr. William P. Thornton.—One by one the older physicians of Cincinnati—those who constituted the profession of the city twenty-five years ago—are passing away: At that time, in active practice, were Wm. Judkins, Sr., Jesse P. Judkins, L. M. Lawson, Geo. Fries, Geo. Mendenhall, Chas. Woodward, Stephen Bonner, G. C. Blackman, R. D. Mussey, Sr., Wm. H. Mussey, Thos. Wood, J. L. Vattier, A. H. Baker, J. F. White, O. M. Langdon, H. E. Foote, E. H. Johnson, N. P. Foster, Dr. Chas. L. Avery, Dr. N. S. Armstrong, Dr. Taliaferro, James Graham, J. Bird Smith, Joseph Webb, Wm. Wood, Wesley Elstun, Thos. Carroll, P. G. Fore, Dr. Gaus, Wm. Krause, M. B. Wright, Chas. S. Simpson, and not a few others. To the long list of those who have passed to another world is now to be added the name of Dr. Wm. P. Thornton. For many years he was a prominent practitioner of medicine of Cincinnati, retiring only a few years ago from the practice of the profession and removing to the suburbs of the city.

Dr. Thornton died at twenty minutes before 8 o'clock, Wednesday morning, October 10th. Not more than three months ago we met him, when he was temporarily in the city, and he seemed to be then in good health and spirits, apparently as robust and active as he had been for years. When he retired from active practice, it was not because he was in failing health, or because he was not as able to endure the labors of the profession as he had been for years, but because he possessed an ample competency for his support, and did not need any larger income than he was already having.

We learn that his disease involved the stomach, and it was impossible for him to assimilate nourishment, death resulting from general weakness and breaking down of the system. While it is said he suffered very much during the night preceding his death, yet his last hours were calm and painless. At the time of his decease he was Mayor of the village of College Hill.

Dr. Thornton was born in Highland County, Ohio, February, 1817, and was consequently sixty-seven years old at his decease. His parents were strict Presbyterians, of the old school—his father being a ruling elder in that church during his lifetime. The Doctor himself was not a member of any church, although always of the strictest moral character. It is said that when a young man he was at first disposed to study for the ministry, and attended Wabash College, Indiana, with that view, but in some way by the burning of the college building, by which he lost all of his effects, he changed his mind and concluded to turn his attention to medicine. He graduated in literature, but whether at Wabash College or not we can not say. For a period during his younger days he taught school.

After beginning the study of medicine, he attended Lectures at the Medical College of Ohio. On graduating in medicine, he went to Mississippi and practiced medicine there for five years. At the end of that time he came to Cincinnati and practiced his profession here, except when absent abroad, until he retired from the profession. At the age of twenty-four he married in Indianapolis, and leaves his wife to mourn him. He and his wife seemed to have an unusual attachment for one another. He never had any children. While practicing medicine in Cincinnati he visited Europe twice, accompanied by his wife each time. The first time was in 1858, spending the greater part of his time in Paris, visiting the hospitals, medical colleges, etc., extending his knowledge of medicine; but he also visited England, Germany, Austria, etc., examining all that was interesting in their principal cities. Ten years after this trip across the Atlantic, he again visited Europe, and before returning to this country, accompanied by his wife, he made an extended tour through the Holy Land and Egypt, visiting Jerusalem and other places of these venerable and most interesting countries. We often heard him speak of his visit to Judea, and describe what struck him as the most interesting. Before going abroad, he familiarized himself, more or less, with the French and German languages.

Dr. Thornton was a plain unostentatious, man, well versed in his profession, and intelligent in the affairs of life. Of more than average education and cultivation, having seen a great deal, and independent in thinking, he was an interesting conversationalist. He was a man of humane feelings, and did much to assist those who needed assistance, especially in the way of services. A number of instances have come under our observation wherein parties were under great obligations to him for favors. He gave no little of his services in the way of his profession to the poor, and was apparently as conscientious in attending upon them as upon those from whom he expected full pay. Although doing much to relieve suffering, he never boasted of his good works, leaving to those whom he had helped to speak of them. On two different occasions he held a chair in the *Cincinnati College of Medicine and Surgery*. At one time he occupied the Chair of Anatomy, and, we believe, at the other, he filled the Chair of Obstetrics, although we may be mistaken, for it may be he filled the Chair of Anatomy both times.

He always kept himself well posted in his profession, reading the medical journals constantly. He was a subscriber of several, among them the MEDICAL NEWS. His life was one of incessant study, and his last years were spent in those pursuits most congenial to a man of broad and liberal culture. Though he had lived so long in Cincinnati, yet he took the greatest interest in College Hill affairs, advocating many measures of policy in village matters, and proving himself a good and painstaking citizen. Two years ago he was elected Mayor, having previously been appointed to the office by the Village Council. The years spent on College Hill were very pleasant, and his retirement was one of happy completeness. The care of his semi-rural place, his studies and his official duties, filled his time. Every winter he was in the habit of delivering one of the lectures of the Farmers' College course, and in other ways he contributed to the entertainment of the residents of the Hill.

Dr. Thornton was especially a sympathetic man, and he entered with great interest in the plans and hopes of the younger generation. The young men of the Hill will remember the Doctor with a kindly regret, as he was always ready to hear of their ambitions, and a word of advice and encouragent was never wanting. The funeral will take place at 2 o'clock Friday afternoon, from the College Hill residence, and the interment will be in Spring Grove.

DEATH OF DR. OTTO BOYSEN.—We are pained to chronicle the decease of DR. OTTO BOYSEN, who, we learn, died suddenly at his home in Buffalo, N. Y., of apoplexy, on the morning of September 20th. The Doctor graduated at the *Cincinnati College of Medicine and Surgery* in 1875, and soon after began the practice of medicine in Buffalo, N. Y.

We have had no opportunity of learning any particulars in regard to the history of the decease. We recollect him, however, as a good student and popular with his class. As an evidence of his taking an interest in the profession is the fact that he was a subscriber of the MEDICAL NEWS from the time he graduated until he died, and regularly paid for it.

Rickets and Congenital Syphilis.—Dr. Post in the Boston Society for Medical Observation, as we copy from the *Boston Med. and Surg. Journal*, exhibited a dog which showed characteristic deformities of rickets, and read a short communication on the Supposed Relationship between Rickets and Congenital Syphilis, in brief as follows:

Several communications have recently been read before the Surgical Society of Paris on the subject. Parrot, in his paper, gave in detail his well-known ideas in brief as follows: Rickets is the final lesion of the syphilitic germ which has already passed through intermediate steps, and this relationship is established by the study of a great number of patients in the various stages of the disease. He dwelt somewhat upon the traces left on the skin and teeth after the active stage of the disease has passed, and then proceeded to the second part of his paper, which dealt with the bony lesions, and to which alone I wish to refer to-night. These osseous lesions he ranges under three principal types, which correspond to three successive stages of the disease and ages of infancy: first, the stage of osteophytes; second, the stage of gelatiniform softening; third, the stage of spongoid tissue.

The first stage shows itself in the fœtus, and for the first two months after birth. It is characterized by the development about the diaphysis of osteophytes with bony fibers perpendicular to the diaphysis, and the bones where it ought to be sought are the tibia on its internal face, and the humerus at its lower end and posterior aspect.

The second stage, that of gelatinform softening, shows itself during the first year, and is characterized by the appearance in certain parts of the spongy tissue, and even of the shaft, of a soft, watery, transparent tissue, analogous to jelly, which can end in the cranium by the perforation of the tables and diploe, and at the extremity of the long bones ends in a separation of the epiphyses, and consequent loss of power, to which condition Parrot has given the name of syphilitic pseudo-paralysis.

To the third stage appertains the medullization or decalcification of the bone, which is a continuation of the preceding stage, and differs in nothing from rickets. The child does not necessarily go through all these stages of bony disease, but may skip the first two, presenting only the rachitic stage, exactly as certain stages of acquired syphilis may be omitted.

Such is the shortest possible statement of Professor Parrot's views. He has long held the same ideas, and read a paper embodying them at the London Medical Society.

The American Public Health Association will hold its Eleventh Annual Session at Detroit, Michigan, commencing Tuesday, Nov. 13th, 1883, and ending Friday, Nov. 16th.

The subjects chosen for special consideration at that time are: *Malaria*, *Foods*, *Vital Statistics* and the *Control and Removal of all Decomposable Material from Households.* Special committees will report on *Compulsory Vaccination*, *Management of Epidemics*, and on *Diseases of Animals*, etc.

It is very greatly to be desired that there should be a very full attendance. General hygiene is exciting every year more and more attention. It is becoming to be better appreciated that an "*ounce of prevention is worth a pound of cure*," and, therefore, efforts, unthought of in times past, are being put forth to prevent disease. Only a few years ago, physicians did not seem to consider it any part of their duty to study the prevention of disease, but merely to treat it when it appeared. At the present time they are as much interested in the causes of disease and the best means of *stamping* it out as they are in its symptoms, when present, and how to cure it.

The profession of medicine is the only calling in which those who pursue it unselfishly laborthat their fellow beings may need as little as possible their services. After studying the causes of disease and how to prevent it—investigating without compensation—they spread their information broadcast without recompense. Although some of the causes of disease have increased a thousand fold by the artificial means of living that have been adopted in these modern times, by the increased dissipations of men, and in consequence of the multiplied taxes upon the mental emotions, yet the average duration of life has been markedly increased.

Surgeon General's Library.—We learn from the *Mississippi Valley Medical Monthly* that this library at Washington City has grown to mammoth proportions and inestimable value within the comparatively brief period of its existence.

The origin of the collection is not positively known, but it probably began with the small collection of books in the office of Surgeon-General Loball, about 1830. At the beginning of the late war it consisted of only about 350 volumes—mostly text-books and journals. While Dr. Hammond was Surgeon-General, in 1862 and 3, about 360 additional volumes, chiefly works on military medicine and surgery, were obtained. In 1865 the library contained about 1800 volumes, in 1872, 13,000, and in 1874 there were 25,000 volumes and 15,000 single pamphlets catalogued. At the present time the library contains 60,000 volumes and 66,000 pamphlets. The *British Medical Journal* in referring to it says: "Authorities now regard the library a better practical reference and working collection for medical purposes than the great library in the British museum, or the Bibliotheque Nationale of Paris." To Dr. J. S. Billings, the experienced librarian, and his assistants, Dr. Robt. Fletcher and Dr. H. C. Yarrow, much is due for the success of the enterprise— one in which every American physician should feel an interest and a pride.

GOLD MEDAL AND FOREIGN HONORS TO PARKE, DAVIS & Co.—The following extracts are from the Monthly Magazine of Pharmacy, Chemistry and Medicine, whose correspondent was in attendance at the great International Pharmaceutical Exhibition at Vienna. They are their own explanation:

"Since I have mentioned America, I should not forget to say that Messrs. Parke, Davis & Co., of Detroit, have an important exhibit here, in which we find represented almost all that the apothecary's art can do in America. In the absence of important exhibits by English and French houses, the Germans are evidently pleased at the extent and beauty of the American display. A great portion of it is devoted to newer American drugs, which are as yet very little known in Europe, and are classed as raw products from which the pure active principles have not yet been extracted."

"We are pleased to note that the same firm have been awarded the gold medal of the First Viennese International Pharmaceutical Exhibition, held at the Austrian capital from August 11th to 28th, inclusive."—*Editorial in Therapeutic Gazette*, Oct., 1883.

KOCH'S BACILLI.—It will be observed, on referring to our notice of COATS' PATHOLOGY, among the Book Notices of the present number of the NEWS, that Dr. Coats accepts the validity of the discovery of tubercular *bacilli*, and that he considers these micro-organisms as constituting the virus of tubercles. We hope this matter will soon be demonstrated positively. The ignorance of the profession heretofore in regard to the nature of tubercles and cancer has been a disgrace to it, and so long has it existed, that it has seemed that it would never be removed. Although proving that the disease is parasitic might never lead to a knowledge of its cure, yet it would relieve the profession of no little odium. But, although a remedy might not be discovered as a result of knowing the cause, yet there can be but little doubt that definite means of preventing it would soon be ascertained, which would be a great triumph to the science of medicine.

CHANGE OF NAME.—The spicy and interesting monthly journal of Mr. Alfred Warren, bookseller, on the southwest corner of Sixth Street and Central Avenue, has had its name changed from *Warren's Monthly Review* to *The Cincinnati Building Review.* It presents an exceedingly handsome appearance, being of quarto size and printed on handsome heavy paper.

It is devoted to the interests of building, describing the plans of buildings that are in process of erection in the city and throughout the country, and those that are expected to be built. The number before us has on its first page a handsome engraving of the Court House to be built at Terre Haute, Ind. On another page is a cut of the Salem M. E. Church, Newport, Ky. In the same number are articles on Fire Escapes, Oriental Houses, Prospects of New Buildings Next Season.

The price of the paper is $1.00 per year in advance.

MALIGNANT SMALL-POX IN MEXICO.—Information was received on the 1st inst., by the Surgeon-General of the Marine-Hospital Service, that malignant small-pox was raging in Tapachula, State of Chiapas, Mexico. Twelve hundred deaths had already been reported. The town has a population of about ten thousand.

Good Advice.—"The 'Ephemeris' of Dr. Squibb quotes with approval an editorial from the 'Boston Medical and Surgical Journal,' which contains the following sentence: 'The lesson also is so obvious that he who runs may read, that the more our societies confine themselves to their proper field—the joint cultivation of medical science and good fellowship—and the less they meddle with medical politics, the better will it be for their own future and the common good of the profession.'"

Bromo Chloralum.—We have received a pamphlet lauding very much the merits of this preparation as a disinfectant, deodorizer, etc. We will be pleased if some of our friends, who have had experience with it, will inform us of the results. We have heard it stated that it has failed as a deodorizer in a dissecting room, and when it had been used elsewhere. We are somewhat curious to know what are its merits. Our time has been too much occupied to experiment with it ourself.

Breach of Promise.—A Jury in Mercer County, Ohio, recently gave the plaintiff in a breach of promise case $3000 damages, the defendant claiming that he had broken off the engagement because a fibrous polypous tumor had developed in her uterus. The plaintiff alleged that the tumor was produced by and resulted from protracted courtship, causing her to brood upon her prospective entry into married life.—*College and Clinical Record.*

The Infectious Diseases of Cattle.—On the 15th and 16th of November a conference of persons interested in the matter will be held in Chicago, to consider the extent of prevalence of these diseases in America and the best means of preventing them.

Resignation.—Prof. J. C. Dalton has resigned the Professorship of Physiology in the New York College of Physicians and Surgeons. He will be succeeded by Dr. J. G. Curtis.

THE
CINCINNATI MEDICAL NEWS.

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Original Contributions.

Injuries of the Eye.

BY W. R. AMICK, M. D.,

Professor of Ophthalmology and Otology in the Cincinnati College of Medicine and Surgery. Read before the Union District Medical Association, at the Oxford Retreat, Oxford, Ohio, Oct. 25, 1883.

As a rule, the more important the organ the greater is the protection given to it. We also find that those organs that are directly concerned in that vital phenomenon which we call life, not only have a bony protection, but are like the books of Sybil, as they decrease in quantity they increase in value.

The eye, one of the most important organs of special sense, in the ordinary acceptation of that term, but not necessarily a vital one, is but partially surrounded by bone, leaving a portion of it more or less exposed. This is necessary, as it is impossible to have an organ of vision that will fulfill the requirements of man, without a certain amount of exposure.

In the orbit the eye is placed upon a cushion of fatty and cellular structure. This is to prevent injury from jarring of the body, as well as for ease and freedom of motion. It is surrounded with bone, except at the anterior portion, which generally projects beyond the margin of the orbit. It is still further protected by the eyelids and eyelashes.

Protected to the extent that it is, yet it is frequently injured by blows, falls, cuts, contusions, etc.

The eye may be injured by a blow that is not forcible enough to break the external coat, but some of the internal tunics may be ruptured. As a result of some accident to this organ, a blood-vessel may be severed, and in a few minutes the anterior chamber will be filled with blood; it may be so completely that the iris can not be seen. If the injury is confined to the simple rupture of a blood-vessel in communication with the aqueous chamber, in the course of three or four days, or a week, we find that the blood is absorbed, the aqueous humor clear, the sudden blindness has disappeared, and no impairment of vision remaining.

As the result of an injury, the lenticular capsule may be ruptured, and the lens dislocated. In this instance there may be no inflammatory action following, providing, that the lens is simply thrown backward into the vitreous humor. The effect upon vision is the same as in a cataract operation, producing a very high degree of hypermetropia. In fact, the blow has produced the old cataract operation of couching, having the advantage of no external wound.

A blow upon the eye, made with an instrument which does not cut or penetrate the globe, may be productive of a number of different conditions. It may cause a partial or even complete detachment of the iris at its peripheral margin. As has already been stated, it may cause a rupture of a blood-vessel, or a luxation of the lens. It may produce a detachment of the retina, or a rupture of the choroid, or of the sclerotic. Sometimes we find that more than one organ has been injured. In nearly if not quite all cases of rupture of the tunics we find that one or more blood vessels have been torn and consequently we have hemorrhage

Hemorrhage into the vitreous or aqueous cavities produces sudden impairment of vision, which may be partial or complete, depending upon the quantity of blood that has been poured into them. This will prevent an ophthalmoscopic examination being made, so that we can not ascertain the condition of the fundus, or deeper structures of the eye. The blood comes as a rule from the choroid, and there is more or less detachment or rupture of the retina. There is a sudden loss of vision, and the result will depend upon the extent of the injury and the amout of blood in the vitreous chamber. We have had cases in which there was a sufficient amount of blood in the vitreous humor to completely obscure vision, yet it was absorbed, leaving the patients with scarcely any impairment of sight. There may be floating bodies left in the vitreous, but that is a common result. In other cases where the hemorrhage was not so marked, we have had complete restoration to normal vision.

Again, after a hemorrhage into the vitreous humor, the eye may be destroyed.

When a rupture of the anterior capsule of the lens is produced, traumatic cataract is the result. This form of cataract is more frequently produced by punctures. A slender, sharp instrument penetrates the cornea, passes through the anterior chamber, through the anterior capsule into the lens itself. Through this opening in the capsule the aqueous humor is taken up by the lens by imbibition. This produces a swelling and softening, and an opaque condition of the lenticular substance. The swelling may cause pressure upon surrounding parts and produce dangerous inflammation. Such cases require immediate attention at the hands of the surgeon. In other cases the softened lens substance may be forced through the opening in the capsule into the aqueous chamber, and it may even be absorbed, without any treatment, leaving the eye free from danger.

In any case where the cornea has been punctured, and there is a doubt existing as to the extent of penetration, or if a slight opacity is seen just behind the margin of the pupil, it is always best to produce a complete dilatation of the iris, so that the capsule and lens can be inspected. The reason of this is, that the instrument might have gone through the iris and punctured the capsule behind this organ, and the wound in this situation could not be seen with an undilated pupil.

The sclerotic may be ruptured by direct violence, as a blow from a club, cane, or the fist. The break generally takes place in the outer portion, between the external and superior recti muscles. As we have some large blood-vessels in this vicinity, the hemorrhage may be quite free, and it may pass into one or both chambers.

A blow which is forcible enough to rupture the sclerotic coat, generally dislocates the lens. Sometimes it is driven back into the vitreous humor, then again it may escape through the wound. If the conjunctiva is fractured also, then the lens may escape without being seen. If, however, the conjunctiva remain intact, the lens may be seen lying under it. If this is the case, let it alone, make your applications and apply your dressing without opening the conjunctiva. After the wound in the sclerotic has united, then you can remove the lens.

The iris may be torn loose from its attachment, and a portion, or even all of it, forced through the wound. If only a portion of it has escaped, and it can not be returned with advantage, it must be snipped off with the scissors. If the rupture extends far enough back, the vitreous humor may escape, and a collapse of the eye result. It is very evident that in all ruptures of the sclerotic tunic, there is apt to be considerable impairment of vision at least. In some instances, by freeing the wound, and then bringing the lips together with a suture or two, a considerable degree of vision is preserved.

If the rupture is extensive, involving the ciliary body, and there has been an escape of considerable of the contents of the eye, then enucleation, or the complete removal of the eyeball, is the only safeguard for the other eye.

It is very common for the physician to have patients presenting themselves with some foreign body in the eye. Dust, dirt, cinders, etc., may lie under the lids, or be adherent to the conjunctiva. If these particles are not imbedded they are generally easily removed with a pair of small forceps, a probe with a little absorbent cotton wound around the end of it, or the corner of a handkerchief. If however, the particle is imbedded, especially in the cornea, it is easiest removed with a spud or needle.

Men who work about forges, or in iron founderies, or grinding on an emery wheel, are very liable to get pieces of iron or steel or emery imbedded in the anterior portion of the eye. The foreign particle can generally be seen with the unaided eye. If it is in the anterior portion of the cornea, it can usually be removed with but little difficulty. After a small piece of iron has been removed from the cornea, a spot may remain which is liable to deceive you. It will appear like a small portion of the particle was still remaining, and you may attempt, and even remove it. But this may be simply a stain from the iron, an oxide, formed from moisture and the atmosphere, and removing it causes additional pain, and a larger wound, with no advantage, for if left alone, it will be absorbed in a short time. You can determine whether it is a little particle or a stain, by making an examination with a magnifying glass. If it is a stain, you will find a darkened ring with a pellucid or clear center. You can hasten its removal by using a weak solution of iodine, say one grain of potassium iodide in an ounce of water, putting three drops of this solution in the eye, three or four times a day. Small particles of iron may be removed by the use of this solution in the same manner as for the removal of the oxide stain. If the superficial portion of the cornea has been lacerated, or the epithelium scratched or abraded, so that with every movement of the lids there is a feeling produced as if sand was in the eye, you will find that a drop of castor oil or a little vaseline will have a wonderfully soothing effect. In the oil or vaseline you can put atropia, or morphia, or any agent that you may desire to use.

Should the foreign particle be located in the posterior part of the cornea, or even protrude into the anterior chamber, you may find it neccessary to pass a needle through the cornea and press upon the object from the posterior surface, to prevent it from passing through.

When a foreign body has passed entirely through the cornea it may lie in the anterior chamber. If so, it may be removed by making an incision in the cornea, permitting the aqueous humor to flow out, thus washing it out, or it may be picked up with a delicate pair of forceps. If it is imbedded in the iris, it may be removed by iridectomy, *i. e.* removing a section of the iris. Sometimes the particle lodges in the lens, and an examination made before that organ becomes opaque, reveals the location.

But, if a patient presents himself, stating that he has been struck in the eye with a piece of iron, or steel or gun-cap, and upon examination you find the wound where it has passed through the cornea, and may be you can trace it through the iris, and anterior capsule and the lens, you will have to be very careful in giving a prognosis, especially a favorable one.

A small piece of metal, and the ordinary percussion cap is one of the common forms, may enter the eye with such force as to pass entirely through it, and lodge in the cellular structure of the orbit. It may remain there and give no further trouble than the small wounds which it made in passing through the structures. But, as you do not know where it is located, you will have to be on your guard. If no inflammatory action follows, except from the wounds, and they close up kindly, be satisfied to let well enough alone. Remember that a foreign body may remain in the eye for years, and no dangerous symptoms be produced in the other eye. But the hair which holds the sword of

Damocles over his vision, may be snapped at any moment, and loss of sight be the ultimatum.

But, if the particle has lodged in the ciliary body, or retina, or choroid, and it can not be discovered with the ophthalmoscope, or even if found, could not be removed, then we must expect inflammatory symptoms to supervene, which, in the great majority of cases, sooner or later, will destroy vision in the injured organ. This result would be bad enough, but unfortunately the disease, or its influence, does not remain confined to one eye, but acts on the other through a sympathetic influence. As we have learned by experience, that sympathetic ophthalmia is a disease developed in one eye, by an irritation in the other, generally from a foreign object, and that as long as the cause of the irritation remains active, the remote disease continues, and increases steadily, and sometimes rapidly, to the destruction of vision.

While the foreign body is causing but little pain and irritation in the wounded eye, we can watch and wait. But, when the sound eye begins to exhibit signs of weakness and irritation, then we must act.

In order to save the uninjured eye, the injured one must be removed. The patient may object to this, especially if there is some vision still remaining in the wounded eye. He will cling to the hope that the physician may be mistaken, and this very hope, clinging to him like the poisoned shirt of Nessus, may prove to be the false delusion that will lure him into total blindness.

Sometimes, even after all of the evidences of irritation and even inflammation of the ciliary body, of the iris, choroid and retina have been developed in the wounded eye, and irritation and weakness in the other one, there appears to be an improvement in all of the symptoms. Be not deceived, but watch the more diligently. It is generally the partial calm that sometimes takes place in the beginning of a storm. There may be a little loosening of the folds, but a tightening of the bands will follow. You will find that this relaxation was only apparent, and during this time the poisoned arrows of inflammation have sunk deep into structures that heretofore had escaped. The advance may be slow, yet after a certain time has elapsed, blindness stares the patient in the face, and it is inevitable. Then we must act before the golden opportunity is lost. When it becomes manifest that there is a foreign particle in the eye, causing not only irritation and inflammation, but sympathetic trouble in the other, enucleation should be performed. Remove the injured eye and save the uninjured one. A delay may be dangerous, for, after sympathetic ophthalmia has once been fairly established, a removal of the wounded eye may not have any influence upon it, but the disease will progress just as steadily and as rapidly to a total destruction of vision, as it would have done if the injured eye had been left in the orbit.

It may become necessary to remove the eye in order to allay the intense pain and ciliary neuralgia that the presence of a foreign object frequently develops. Then, especially in this class of cases, when it becomes not only essential but absolutely necessary in order to relieve suffering to remove the eyeball, it is far better to perform the operation in time to save sight in the remaining eye, than to wait until the patient is hopelessly blind, and then remove the offending organ.

Translations from Our Foreign Exchanges.

Translated for MEDICAL NEWS by Dr. Illowy, Cincinnati, Ohio.

ON SOME PECULIARITIES OF EPILEPSY.—PROF. LEGRAND DU SAULLE—HOSPITAL "SALPETRIERE."

In this lesson I propose to speak to you of some of the manifestations of epilepsy. I do not intend to trace before you the classic manifestations of this disease, I shall only call your attention to a few points more or less unknown.

Among the unusual phenomena of epilepsy, there is one which has, as yet, not been described at all, and which we have observed but lately only despite the great number of cases that have been examined by us since many years. Four patients in our service have had such a great number of attacks that we felt impelled to bring them before you. The number of attacks surpasses anything that has been mentioned in the books. Furthermore, the continued use of bromide of potassium in the cases mentioned has proved extraordinarily efficacious, so that there are two interesting points in the cases of these patients: the frequency of the attacks, the happy influence of treatment.

One of these, Anjele M., aged 17, who, on her admission, had but few attacks, was taken with typhoid fever; the bromide was stopped; the attacks did not appear during the whole period of pyrexia. About the 35th day we resumed the treatment, but certainly too late, for the convulsions very quickly reappeared; she had 1,750 seizures in three weeks; to-day, thanks to the administration of the bromide in doses of 3 grmms. 50 (52 grs.) per day, she has not more than three or four attacks per week.

Rosa G., aged 15; on her admission the convulsive seizures were very rare. Last January she was taken with headache, vomiting, constipation; the pulse was 130, and temperature normal. We thought at first of tubercular meningitis, but very soon epileptic seizures manifested themselves so numerously that, thanks to the organization of a continued surveillance day and night, we have been able to count 8,000 seizures in less than 20 days. Energetic treatment was instituted; we gave during two or three days 15 grmms. of the bromide; now she has not more than three to four attacks per day.

Our third patient, B., aged 21 years, had 1,530 attacks during the year 1879. Treatment has brought about such amelioration that he has become assistant nurse.

Our last patient, D., aged 21, had only 300 to 500 attacks per annum. But the most remarkable thing in her case was that, every ten days, she became a furious maniac, from eight in the morning till half past twelve. In this case we instituted a double treatment; against the neurosis we gave the bromide, and have had the pleasure of seeing the attacks decreased from 500 to 60. Against the periodic attacks we prescribed sulphate of quinine, and the periodic attacks of mania were broken up. One day when, through mistake, the quinine was omitted, the attacks reappeared with the same intensity, a fact demonstrating the influence of the quinine.

This said, we shall now enter upon some general considerations of epilepsy, and insist on some points in particular. We have in France a considerable number of epileptics; the official statistics give the number of 40,000, but these figures are far from correct, for there are numerous families who dare not avow that they are afflicted with this terrible malady. Furthermore, we should count as epileptics only those who have well marked convulsive seizures. We must distinguish the epileptic proper; the alienated epileptics, the masked epileptics, the alcoholic epileptics and the paralytic epileptics. The epileptics proper should, in view of their mental condition, be divided into three classes. In the first, the intelligence is scarcely affected; they can attend to their affairs and hide their true condition; these are the privileged ones. The second present transitory disturbance of the intellectual faculties manifesting itself during or after the attack—they have moments of absent-mindedness. In the third class should be ranged all those having permanent disturbances of the intellectual faculties; these are the veritably insane. But, in a general way, you can not compare an epileptic to an insane person, for we find in the world of epileptics very intelligent and greatly gifted persons.

In epilepsy we recognize three orders of somatic phenomena; the vertigo, the incomplete seizure, the convulsive attack. Since the thesis of Calmeil, 1824, which treated more particularly of the convulsive phenomena, there was no remarkable work on this subject until Trousseau insisted more particularly on the vertigo, but he neglected almost entirely the incomplete seizure, which is as much an epileptic phenomenon as vertigo. The illustrious clinician has given a very exact description of a person afflicted with vertigo. A patient in the midst of conversation, or during his work, becomes pale all at once, stops, interrupts his sentence, keeps the eyes fixed for a few seconds, then sighs and terminates the sentence begun, or ends the word. A person playing whist will make the motion of playing out his card on the table, when all at once the card drops from between his fingers and falls down on his knees; after a few seconds of immobility he will continue the game.

Despite its short duration, the vertigo leads to intellectual disturbances and to the accomplishment of strange acts.

The vertiginous patient is destined more especially to lose his memory. Trousseau has indicated this fact, as he has also demonstrated that we may see vertiginous epileptics mechanically raising their clothes and uncovering their genital organs. Prof. Lareque has studied this latter category of patients and has given them the name of *Exhibitionists*, but our regretted colleague and learned confrere was, perhaps, wrong in confounding under one denomination persons whose mental state is absolutely different.

In a railway carriage in which there are eight persons, a man of 40 years rises suddenly, throws his eyeglasses out of the door, urinates upon the knees of a little girl of 8 years, then sits down again without seeming to understand the indignation of his fellow-travelers. On the arrival of the train, he is arrested and taken to the prefect of police. I examined him with great care the following day, and soon recognized that this man was a vertiginous epileptic.

Another fact: A woman filches a pair of shoes from a stand before the eyes of the merchant. Arrested, she had neither remembrance nor consciousness of the act imputed to her. Since that time I saw that woman three times at the prefecture of police. Once she raised her skirts in the streets, excited by her words an old man to debauchery, and insulted a guardian of the peace. During one of her vertigos she dipped her hands into a pot of boiling milk.

We have said that, besides the vertigo, there is another phenomenon which we have denominated; the incomplete seizure. What is the incomplete seizure? It is an epileptic manifestation intermediary between the vertigo and the convulsive attack. It is characterized by partial convulsive movements, or rather by the contractures of certain muscles of the face and members, by mumbling, and a sort of automatic deglutition. The patient, no matter in what attitude he may be, stops suddenly, his face pales, one side of his body stiffens, respiration is suspended, a sort of mumbling (up and down movement of the jaw) is produced and a bruit of deglutition is heard. At the end of several seconds everything returns to the normal condition. These "false seizures" are always the same. The incomplete seizure represents the attack reduced to its initiatory symptoms; this one is the diminutive of the other. After the incomplete seizure, patients have only a confused notion of what has happened to them. If it were a judiciary matter, it might be believed that they were simulating amnesia. With many efforts, they may be induced to say that they have a vague reminiscence of something painful and horrible having happened.

Trousseau relates the case of a priest who, whilst incensing his bishop, all at once began to turn his head in a bizarre manner and to make grimaces which were observed by all. The president of a tribunal rose suddenly from his seat during a pleading and went to urinate in the council chamber, stammered a few words, and then perceiving his error, returned very quickly to his seat. A woman of the best society, and well brought up, stopped all at once in the midst of a conversation and began to use rather strange language. Trousseau considered them as vertiginous; I believe they must be classed with those of incomplete seizures.

A somewhat surprising phenomenon may manifest itself in these patients. Thus it may happen that a patient who has had an incomplete seizure at 10 A. M., and a second at 4 in the afternoon, will not remember what he has done between the two seizures. This was the case of a talior who, having an incomplete seizure at 9 A. M., departed for Neuilly to try on some clothes. At 4 P. M. he has another incomplete seizure; he again takes the packet of clothes which he had already carried and returns to Neuilly. Here he learns with astonishment that he had already been there during the day, and had already had the garments tried on. This patient had absolutely lost all recollection of what he had done between the two incomplete seizures. This is a very characteristic phenomenon.

The epileptic, after an incomplete or complete attack, or after a vertigo, may have impulses of which we shall now say a few words: Impulse is a psychical phenomenon by virtue of which an individual is imperiously compelled to commit such or such an act. Impulse is most often brusque and thoughtless. A soldier, subject to incomplete seizures (numbling movements of deglutition), began to strike his sergeant all at once without any apparent cause. Condemned to death by a council of war, his malady was very soon recognized and he was pardoned. He was placed in an asylum, and here, very soon thereafter, taken by an irresistible impulse, he began to attack the nurse who watched him. Driven on by an irresistible impulse, an epileptic may kill the persons surrounding him; and very often, then, it is very difficult for the physician to force an admission of the irresponsibility of the patient, because justice accuses the physician at times of an exaggerated philanthropy.

Happily, these impulses, as well as the other manifestations of epilepsy, can be combated by the bromide of potass. We have in our service a patient who, about three years ago, taken by an irresistible impulse, pursued a subnurse with a pair of shears; the latter jumped through the window and was immediately followed by the patient, who would have certainly struck him if others had not intervened. Placed on treatment, 6 grmms. (90 grs.) of bromide per day, the patient has not since then shown any impulsive acts.

Apropos of impulses, it is a fact of great importance to be set forth, and the knowledge of it of great usefulness in legal medicine: That the epileptic does not strike like one who labors under the delusion of being persecuted; he assuages his rage on his victim. A case is cited where the patient made 63 wounds. The sufferer from delusions of persecution strikes only a single blow.

Certain epileptics present another phenomenon on which I shall delay but a few moments: I refer to *unconscious flights*. Thus these individuals may feel an automatic desire to walk straight before them, without any definite object, and they are often very far from home when they return to consciousness. I once saw with M. Laseque a patient who one day took a railroad ticket for Marseilles and found himself in that city without knowing how he had arrived there. A year after this the same individual departed for Havre, and when he returned to consciousness he found himself on a vessel bound for Bombay. This is the same patient who killed himself before the apartments of his wife because she would not receive him. His son, who accompanied him, thereupon shot himself at once. This event happened in Paris in November, 1878, and gave rise to the most erroneous comments.

The facts which we have just detailed will enable you to understand what we mean by masked epilepsy. These men who, at certain times, vagabond around thus without knowing it are the subjects of an "*Epilepsie Fruste.*"* The morbid manifestation is psychical; it is epilepsy of the intellectual faculties. An archæologist is able by the aid of a few signs preserved in an inscription to reconstruct said inscription entirely; in the same manner should the physician be able to seize a word from the morbid phrase and with this word reconstruct the whole phrase.

Individuals subject to masked epilepsy may present, and are liable thereto, at certain epochs, anomalies of the intellect of very brief duration. We see these patients given over to the most bizarre eccentricities; they become violent and aggressive; take long, unconscious walks; have irresistible impulses and tendencies to homicide. These acts are always the same and repeat themselves in invariably the same manner; the impulses are always uniform. I once examined an incendiary who placed a fire regularly once every month. This man was a masked epileptic. Treatment by bromide of potass., he has not attempted to commit an arson since beginning treatment. This uniformity in the impulses of the acts is also found in the vertiginous. Thus a young man living on the fifth floor descended the five flights after every vertigo, took the soup tureen of the concierge and reascended to his room without the least consciousness of what he had done. Another subject of vertigo whistled the same air every time he had the vertigo.

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*A frustrated epilepsy.

I have passed in view before you, gentlemen, certain peculiarities of epilepsy. I have shown you the patient afflicted with vertigo, with incomplete seizures, subject to unconscious flights and to irresistible impulses. To terminate this lesson I will recall the observation of Michot, the assassin of Montargis, who presented in himself, at the same time of a grand convulsive attack, all the other manifestations of epilepsy of which we have spoken. Michot, aged 42 years, was subject to vertigos, which returned in a periodic fashion "at the full of the moon." Later he complained of incomplete seizures and of grand convulsive attacks. He was also subject to unconscious flights and to irresistible impulses. It was in consequence of one of these impulses that he killed his wife with a bill-hook and made a march of 9 to 10 kilometers, massacring on the road six persons whom he encountered.

You see, gentlemen, how important it is for the physician to recognize all these facts, and to know that an individual arrested for immoral acts or for murder may be an unconscious epileptic. The minute observation of all the manifestations of epilepsy, the exact knowledge of all the unusual phenomena of this affection, will enable you to make a clear and certain diagnosis and to enlighten the tribunals in the matters that may be submitted to them.—*Gazette des Hospit. Union Medical, Canada.*

RESEARCHES ON THE CAPILLARY PULSE.

Described for the first time by Guincke in 1868, who observed the phenomenon under the nails of the hand; the capillary was rediscovered and described by Becker, who found it in the capillaries of the retina in subjects affected with aortic insufficiency (1871) and in three cases of Basedow's disease. If the facts of the retina pulse are well known to-day to opthalmologists, the same is not the case with the sub-ungual pulse; in France, at least, there is only one observation on record, due to M. Gripat, and published in the bulletin of the "Societe Anatomique," 1873. The sub-ungual pulse is thus described: At the moment of the arterial diastole, the nails of the hands become of a vivid vermilion color, which comes instantaneously and disappears in the same manner, replaced by an anæmic paleness of the matrix during the arterial systole. The value of this semeiological phenomenon is as yet obscure, says M. Ruault in "La France Medicale," but it is otherwise the case with the visible or *provoked* capillary pulse, which is often observed without prefatory manœuvres. The capillary pulse is sought for by streaking the forehead of the subject with the finger nail, and if the vasomoter spot thus obtained by this procedure be maintained by holding the finger at 30 or 40 centimeters, the appearance of the phenomenon is very distinctly seen, but the patient must be perfectly quiet and in the shade. M. Ruault has never found the capillary pulse in a healthy person, and has observed it in the following pathological conditions: Chloroses, lead poisoning, but with the greatest distinctness he has seen it in aortic insufficiency. —*Gaz. Med. de Nantes.*

ACCIDENTS OF SYPHILIS—MAURIAC.

For the dressing of primary ulcers, mucous patches of ulcerating syphilides, Prof. Mauriac advises the employment of chloral in such formula.

Aq. Distill,	OI.
Hydrate Chloral,	ʒi. grs. xv.
Tinct. Eucalypt,	ʒiiss.

To cause the disappearance of pigmented spots left by certain syphilides, Mauriac employs the following solution, with which the parts must be frequently moistened; if the spots are not quickly effaced, they must be kept covered continually with a cloth moist with this solution:

℞	Hydrarg. Sublimat,	grs. iv.
	Muriate of Ammon,	grs. xii.
	Eau de Cologne,	℥i. ʒii.
	Aq. Distill,	℥iii. ʒi.

M.

In cases of syphilitic psoriasis of the palms and plantar surfaces, the following preparation is useful in hastening its disappearance:

℞	Vaseline,	℥i.
	Oil of Cod,	ʒss.
	Ungt. Hydrarg,	ʒss.

M. Ft. Unguent.

The Treatment of Psoriasis.

Read before the Philadelphia County Medical Society, October 17, 1883.
Reported for the CINCINNATI MEDICAL NEWS.

BY ARTHUR VAN HARLINGEN, M. D.

PSORIASIS is one of the commoner skin diseases met with in this country. The Statistics of the American Dermatological Association show that it occurs in the proportion of about six per cent. in all diseases of the skin encountered. Daily experience would seem to indicate a still more frequent occurrence, because the affection is a disfiguring and annoying one, and therefore patients are more inclined to seek relief, and also because it is a stubborn disease and greatly prone to relapse. The history of a single case will often extend over many years, and bring it under the observation of a number of different physicians.

It is because of the comparative frequency with which psoriasis is met and its stubbornness to treatment, that I have selected it as the subject of my remarks this evening. Having had a good deal of experience in the treatment of the commoner forms of the disease, it is my intention to confine myself chiefly to the consideration of such remedies as have come under my own observation and use, only touching incidentally on others.

The object of treatment in psoriasis is the removal of the eruption as it exists upon the skin. We can not hope with any degree of certainty in any given case to prevent a recurrence of the disease, or, if you please, a relapse. For the drug has not yet been discovered which will surely take away all tendency to the recurrence of psoriasis, and whoever promises a cure, in the wider sense of the word, to his patient, will, in a very great number of cases, find that he has been too sanguine. Fortunately, however, a certain number of patients do seem to recover. I do not know what has been the experience of others in this respect, but I have patients who have been under observation three, five, even eight and ten years without relapse. Such cases are, unfortunately, few.

Pre-eminent among the internal remedies which are useful in the treatment of psoriasis, is arsenic, which may be justly called a specific in this disease. I think I am not asserting too much when I say that eight out of ten cases of psoriasis of average character and severity, shall do better under the use of arsenic than with any other remedy. I prefer Fowler's solution given in the average dose of four minims thrice daily. I think this solution is often prescribed in too large doses, and I am sure the dose of five to ten minims, as given in the books, is too large for ordinary use. Most patients bear a four-minim dose very well, but there are idiosyncrasies. I have sometimes been obliged to limit the dose at the beginning to one minim in cases where subsequently such toleration has been established that twelve minims have been taken with impunity. However, four minims is a good dose to begin with, and if the effect does not begin to show itself within ten days or two weeks, the amount may be gradually increased. Fowler's solution should never be given to the patient in a vial with directions to drop out the requisite number of drops. The patient is apt to make a mistake, vials of different sizes may pour out more or less in each drop, and there is always danger in leaving a half-empty vial of poison about the house. The solution is better given mixed with water, or with wine of iron or other convenient vehicle.

The effect produced by arsenic upon the eruption of psoriasis is, first, in diminishing the quantity of epidermic scales thrown off, and then in preventing the appearance of new lesions. The patches gradually lose their scaliness, begin to heal in the middle and disappear little by little. It must be remembered, however, that arsenic is a slowly acting remedy, and its use should be continued through many months to get the best security against relapse.

The other liquid preparations of arsenic used in psoriasis are Pearson's solution of the arseniate of sodium, and Donovan's solution of the iodide of mercury and arsenic. I have used the former in a few cases without noticing any perceptible difference as regards efficiency between it and Fowler's solution. The solution of mercury and arsenic (Donovan's), I have employed in certain stubborn cases with good effect where Fowler's solution has seemed to fail. The existence of syphilis as the cause of the eruption in these cases having been excluded, I am at a loss to account for the apparently greater efficacy of the mixed treatment. The dose given was as much as ten drops, and although this solution is weaker in arsenic than Fowler's, yet I am inclined to the opinion that the conjoint administration of the two drugs, mercury and arsenic, was the cause of the good result rather than the increased dose. I should be inclined to use Donovan's solution in cases where Fowler's solution shall have failed.

The mixture of arsenious acid, black pepper and sugar of milk, known as Asiatic powder, and recently placed in the Pharmacopœia with the pepper left out, among the triturations, is of no particular value above the other preparations, and is not so convenient of administration.

Hypodermic injections of solutions of arsenic have been employed in the treatment of psoriasis, but I have had no experience in their use.

Next in value to arsenic in the treatment of psoriasis is iron. I commonly employ the tincture of iron in cases where arsenic does not seem indicated. There is one type of psoriasis which includes robust, rosy, well-nourished individuals, "the very picture of health." Such people have never been sick a day in their lives, or perhaps may have had slight attacks of articular rheumatism. Such patients do well under arsenic.

But there is another type in which the individual is thin, poorly nourished and perhaps somewhat anæmic. These are the cases which do well under iron, which is best administered in the form of the tincture of the chloride. With these two remedies, arsenic and iron, I usually succeed in curing ordinary cases of psoriasis, adding in rare cases cod-liver oil to the use of the tincture of iron when debility is present. Of course local applications are employed at the same time. Of these I shall speak presently.

In addition to the internal remedies mentioned, quite a host of others have been employed from time to time. Such are tar, carbolic acid, copaiba, phosphorus, tincture of cantharides, tincture of maize, carbonate of ammonia, acetate of potassium and other diuretics; the alkalies, as liquor potassa and the alkaline mineral waters. Of these I have found alkalies and diuretics useful in cases when a markedly inflammatory condition of the skin has existed. The other remedies I have not employed, nor do I think the reports of their usefulness based on a sufficient number of facts, except in the case of tar possibly, to make it worth while to try them.

Equally important with the internal treatment of psoriasis is the external management of the disease. It is, of course, desirable to remove the eruption as soon as possible wherever it may be situated; but when it is found upon the face, there is every reason to endeavor its cure by all means and in the shortest time. External and internal treatment should therefore be combined when practicable. The first thing to do is to remove the scales. This may be done by means of local or general baths, wet dressing, etc., or by inunctions with fats and oils, by the use of soap, or by the action of impermeable dressings of india-rubber or oil silk. When only a few lesions are to be acted upon, a solution of salicylic acid in alcohol, 1 part to 16, well rubbed in with a sponge, will remove the scales very nicely.

The scales having been removed, the next thing is to apply such substances to the diseased patches as may most quickly modify the abnormal condition of the skin, and bring it back again to a healthy condition.

An innumerable number of applications have been recommended for this purpose, the most of which I shall pass over with only a mention. Such have been soaps and alkalies, citric and hydrochloric acids, sulphur, iodine and mercury, alone and in combination, together with the various forms and preparations of tar, creasote and carbolic acid.

All of these remedies have their uses, and most of them, especially the tarry preparations, I have employed time and again in years gone by and with moderate satisfaction. The introduction, however, of chrysarobin or chrysoplanic acid some six or seven years ago, put quite a new face on the local treatment of psoriasis; and since then, with the aid of this and other later discoveries, we are able to work a much more rapid change in the appearance and condition of the skin in this disease.

As chrysarobin is perfectly well known to all here present, both as to its advantages and defects, I shall say but little about it in the ordinary form of its application, namely, as an ointment. When it first came out I tried it quite extensively, but its disadvantages seemed so great that I had already begun to restrict its use greatly in my practice, when a new agent appeared, which for every-day use has in my hands, until very recently, almost entirely superseded all other local applications. I refer to pyrogallic acid.

I do not think pyrogallic acid is by any means so well known as an application for the relief of psoriasis as is chrysarobin. If I may judge by the infrequency with which its virtues are mentioned in the journals (although I believe all recent text-books speak of it), it is not in general use. But it is, in my opinion, one of the very best remedies we have for the cure of cases of psoriasis of average severity. Employed in the form of ointment, of the strength of one-half to one drachm of the pyrogallic acid to one ounce of simple ointment, the effect produced by it is almost as rapid and decided as that brought about by chrysarobin, without the accompanying discoloration. A slight blackish staining is all that is produced, and the ointment can even be employed in the scalp without markedly discolorizing the hair, if applied cautiously. It is desirable, however, not to apply soap or alkalies at the same time, because this causes a more permanent and deeper stain.

Pyrogallic acid can not be used in extensively generalized psoriasis, when large surfaces are affected by the disease, without a certain amount of danger from absorption, as indicated by strangury and olive-green or tar-colored urinary secretions. With care, however, and the occasional suspension of the remedy for short periods, I believe this remedy could be employed even in universal psoriasis with good effect.

One more external application in psoriasis remains to be spoken of—namely, naphthol. This drug, a derivative of coal-tar, was introduced into use several years ago by Kaposi, of Vienna, as a sort of substitute for carbolic acid. He recommends it very highly in psoriasis, in the form of ointment, about eighty grains to the ounce, and I have used it in this and other strengths, and also in solutions in alcohol and oil, with fairly good effect.*

Naphthol is not so active in its effect as chrysarobin or pyrogallic acid, but it is much more agreeable and is, I think, peculiarly well adapted for employment upon such parts as are exposed to the view, as the face and hands. Like pyrogallic acid, it must be used with caution over large surfaces, as absorption with toxic effects may be produced.

It remains to mention briefly two or three methods of application of these remedies which have recently been brought forward. The first of these is the treatment by medicated gelatine which was introduced by Prof. Pick, the well-known dermatologist of Prague. My attention was first drawn to

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*In a communication read before the American Dermatological Association, last month, and published in the *American Journal of Medical Sciences* for October, I have given the results of my experience in the use of naphthol in various diseases of the skin, psoriasis among the number. I may refer to that paper for further details as to the action of the drug in this disease.

this by a pamphlet which Prof. Pick kindly sent me, in which he gave an account of his earlier experiments with medicated gelatines, but I have not as yet had an opportunity of testing this method of medication as I should desire. I may say, however, that the method does not seem to me calculated to prove convenient and popular in private practice. I had for some time been making some experiments in my service at the Polyclinic in the preparation of gelatines impregnated with chrysarobin and pyrogallic acid, but without much satisfaction, when Dr. Chas. L. Mitchell, the well-known pharmaceutist of this city, sent me some excellent preparations of his own, which seem to be perfectly adapted to the purpose for which they are intended. A bit of one of these gelatine sticks is cut off and placed in a water-bath, where it soon melts into a clear homogeneous fluid, which may then be applied to the lesions of the skin by means of a paint-brush. The advantages claimed are cleanliness and transparency. The coating of gelatine does not rub off on the clothes, and is therefore not so dirty as an unctuous application. A fresh coating can be painted on every day or two as the old layer wears off. The chief disadvantage of this method of treatment is that it requires apparatus which is not convenient to carry about, nor can the patient be trusted to employ it at his discretion. My own experience is that in psoriasis, at least, the gelatine applications are not active enough. I have not, however, used them with sufficient frequency to pronounce a positive opinion.

Recently a solution of chrysarobin in collodion has been recommended in the treatment of psoriasis by Dr. George H. Fox, of New York, and several dermatologists have confirmed his statements with regard to its efficacy. I have employed this preparation in one or two instances, but it has seemed to me so much less active than the chrysarobin ointment that I have not been encouraged to continue its use. It has one great advantage over the gelatine applications, however, and that is that it can be applied extemporaneously and without the paraphernalia which must accompany the use of the gelatine.

A few weeks since a pamphlet by Prof. Auspitz, of Vienna, reached me, in which that distinguished dermatologist recommended liquor gutta perchæ as a vehicle for the application of chrysarobin. I at once obtained a ten per cent. solution, or rather emulsion, of chrysarobin in liquor gutta-perchæ, and happening to have a case of psoriasis of the face and scalp under treatment, I gave some to the patient to apply once daily. The effect was so happy as to encourage me very much to hope that we have in this preparation the most convenient method of applying chrysarobin yet devised; and as chrysarobin is, after all, the most efficient local agent in the treatment of psoriasis as yet brought forward, I have no hesitation in urging the trial of this preparation on any one who may have a case of psoriasis under treatment. It is to be noted, however, that the same watch must be kept upon the skin for fear of exciting dermatitis as when the ointment is used. Only when the liquor guttaperchæ dries, which it does very quickly, there is little or no danger of rubbing the chrysarobin over the good skin, nor is there much danger, if any, of staining the clothing.

Selections.

Report of a Cancerous Liver Weighing Seventeen and a half Pounds.

BY C. P. WERTENBAKER, M. D., CHARLOTTESVILLE, VA.

Martha Allen, colored, age 47, married washer-woman, was the third child of a family of seven—three boys and four girls, of whom two of the boys are dead. Her parents were both healthy; her mother is still living; her father died during the war. Neither of them had ever had any syphilitic or scrofulous affections, as far as known.

They were a healthy family. The subject of this report was the mother of seven children, of whom four are now living and in good health. The others died in infancy. Her general health was quite good up to last fall (1882). The menstrual flow had ceased about a year prior to that time.

It was about October (1882) that she first complained of feeling bad—suffering from fullness in the epigastric region, with nausea after eating; bowels constipated. She did not go to her work regularly, but sat about the house and complained of feeling languid and tired. She did not take her bed, however, until about the middle of January (1883), which she kept till her death, which occurred on May 13th,

1883. She was much weakened, but did not complain of any pain until the early part of February, when she commenced to suffer with pain in the small of the back, with fullness in the epigastric and right hypochondriac regions. with some swelling visible. She had nausea after eating, though her appetite was good, and continued so until a few days before her death. Jaundice became marked twice during her illness, but remained only a few days each time. A few days, possibly a week, before death, the jaundice became very intense and remained so. About ten days prior to death, her left leg became cold and swollen; this was never relieved. She complained of heat around the chest, with cold sweats; urine was high-colored, but passed freely and in good quantity; at times there was incontinence. The night of her death, she suffered greatly with pains in her back. She died of exhaustion.

The above history I have collected from the statements of the husband and friends of the subject, and it has been confirmed by Dr. John Lewis, whose patient she was. I did not see the patient during life.

The *post mortem* examination was performed by Dr. Hugh T. Nelson and myself. We found the subject to be a female about forty-five years of age, apparently about five feet, four or five inches in height, a bright mulatto and greatly emaciated.

Upon examination, we found the abdomen greatly distended, the skin, however, being quite flabby, and there could be felt beneath a large, irregular tumor, extending downward to about an inch below the umbilicus. On the right side, and seemingly adherent to the costal cartilages above, about two inches above, and two inches to the left of the umbilicus, there was a deep notch several inches in depth, which separated the main portion of the tumor from a portion on the left, which I mistook for the spleen, greatly enlarged. This, however, afterwards proved to be the left lobe of the liver. The spleen was normal. There being evidently some dropsical effusion in the abdominal cavity, we introduced the trocar and drew off about a gallon of clear fluid, which contained a slight tinge of biliary-coloring matter. We next proceeded to open the abdominal cavity, which we did in the usual manner. The anterior abdominal wall was found to consist of nothing save skin, fascia and peritoneum, the abdominal muscles having been entirely absorbed. Lying just beneath the abdominal walls was a large livid mass, which stretched away to each side and entirely filled the upper half of the abdominal cavity, and extending downward to within a few inches of the symphisis pubes, presenting to our astonished eyes the most gigantic specimen of a liver that we had ever dreamed of. We next proceeded to examine the rest of the viscera. The stomach was pushed backward and to the right, and was entirely out of sight, nothing being visible in the cavity but the upper surface of the two lobes of the liver, the transverse colon and the small intestines. Upon dissecting out the liver we examined the rest of the viscera. The spleen was found to be about normal, both in regard to size and position. The pancreas seemed to be slightly enlarged. The kidneys appeared to be normal, so they were not disturbed. The uterus and ovaries were normal.

The only thing which drew our attention was the appearance of the mesenteric glands, which were enlarged, and the whole mesentery was congested. These glands varied in size from a pin's head to that of a large pea, and of a dark brown color. The lungs were found to be of a dark, grey color, much compressed. The heart was slightly enlarged, but otherwise normal.

The *liver* itself was one of the most interesting pathological specimens which it has ever been my pleasure to see. As it lay on the floor, resting on its inferior surface, it had somewhat the appearance of a pair of lungs which had been inflated. Its weight was *seventeen and one-half pounds.* It measured twelve inches transversely, eleven inches antero-posteriorly, and six inches from its superior to its inferior surface. These dimensions, thus stated, fail to convey to the mind an adequate idea of its enormous size as the thickness (six inches) remained the same to within three inches of the anterior border, which then sloped off until it was not more than one inch thick at the edge. It may give you some idea of the size when I tell you that it nearly filled a common tin slop-tub. Its color was a dark-red, and its surface was dotted with irregular, circular white spots of cancerous tissue, the largest measuring from one and a half to two inches in diameter. They were usually umbilicated.

Dr. John Lewis, who had had charge of the case, kindly gave me the specimen, which, after thoroughly examining, I presented to my friend and former Professor of Anatomy, Dr. John Staige Davis, of the University of Virginia, who has placed it in the Medical Museum of the University. On account of its uncommon size and its interest as a pathological specimen, I have taken some trouble to investigate the subject of large livers, and as far as I have been able to ascertain it is the largest liver now on record. Budd, on Diseases of the Liver (p. 416), mentions a case, which died on May 25th, 1855, in which the liver weighed nine pounds, four ounces (9 lbs. 4 oz.).

Dr. Huger, of Alabama, in *Charleston Medical Journal*, for April, 1874, reports a case in which a cancerous liver weighed fifteen pounds, ten and a half ounces (15 lbs. 10½.).

Aside from these two cases, I can find nothing in the records either of Europe or America which can compare with the present specimen, and I think I am justified in believing that it is the largest liver, cancerous or otherwise, which has ever been presented to the medical world.—*Va. Med. Monthly.*

Extract of Malt.

BY E. R. PALMER, M. D.,
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When Extract of Malt was first introduced into this country, I had my attention called to it as a therapeutic agent, but never gave it or saw any one who had taken it. I lost sight of it as a remedy. About five years ago I began to prescribe lager beer in certain cases, and have had many most admirable results that I could point to as following upon its use. I have found it of marked benefit in duodenal dyspepsia accompanied by constipation and emaciation, both of which it corrects; and also have frequently found it to be a panacea in cases of mental or physical exhaustion, accompanied by fretfulness or irascibility and wakefulness. Only during the year past have I given the Malt Extract; yet the more I give it the better I am pleased with its therapeutic action in certain of the most common chronic maladies. In consultation with a surgical colleague I ordered "Trommer's Extract of Malt with Hypophosphites" in the case of J. S., adult, of strumous habit, afflicted with an old psoas abscess. The patient had taken cod-liver oil previously. The improvement was very marked; the amount of discharge decreased rapidly, with a proportionate gain in flesh and strength, which soon enabled him to return to his bench as a cabinet maker. When I last saw him, six or eight months ago, he was still taking the remedy in question.

I was called, a few weeks ago, to see Mrs. O., suffering with bronchial catarrh, with a history of previous hæmoptysis. She had taken, under the direction of another physician, eight bottles of the Extract of Malt with Hypophosphites. I asked her what she thought of it, and her reply was, that while it had not cured the cough, it had entirely relieved her of a distressing dyspepsia and nervousness.

Mrs. B., suffering with post-nasal catarrh, dyspepsia and constipation, is taking the simple extract of malt with decided alleviation of all her symptoms, especially her constipation, which was a source of much trouble to her.

Sarah B., adult (colored), patient of Dr. Cottell, a sufferer from chronic malarial poisoning, and much broken in health, began the use of malt and oil, after a long and apparently fruitless course of bark alkaloids. Improvement was rapid and marked, so that she was soon able to resume her duties and go through with the arduous labors of spring house-cleaning.

J. M. H., adult, male, with previous good personal history, but bad family record, was seized suddenly, about six weeks ago, with hæmoptysis. In my absence he got, of Dr. Cottell, fluid extract ergot and gallic acid. The hemorrhage was checked for a day or two, and then returned; was checked and returned a third time, when he went to bed. He was delirious, and had a temperature of 103.5°, and a pulse of 130, night-sweats and cough, with *subcrepitant rales* throughout the right mammary region. I feared that I had a case of acute tuberculosis, and made a grave prognosis. I ordered carbonate of ammonia and morphine, and after a couple of days changed to syrup of wild cherry and chloral. After three or four days the delirium, which was never marked, passed away, and I ordered extract of malt and oil, to be taken with wine. He protested that he could not take oil. I assured him he could take the preparation ordered. He improved steadily, is out of doors, coughs but little, has regained his flesh and appetite, lost his night-sweats, and expects to go to work at his trade (piano making) in a few days.

Sarah H. (colored), married but sterile, has a strikingly similar history, excepting the delirium. In her case emaciation was very marked, owing probably to the large amount of blood lost. She has taken, so far, four bottles of malt and oil, and is clearly improving in health and strength.

One case more: Mattie M. (colored), a school-teacher, of large frame, weight, before sickness, about one hundred and seventy pounds, developed hereditary phthisis about eight months ago, with all the usual train of symptoms, including laryngitis. She had an emulsion of cod-liver oil (an excellent preparation) with moderate improvement, also Churchill's Syrup of Hypophosphites; but the cough and hoarseness, with occasional hemorrhage, continued. About three months ago I ordered carbolic acid by atomizer for throat, and Trommer's Extract of Malt with cod liver oil internally, withdrawing all other treatment. In the last two months I have not seen her, except on the street and once in my office. She hardly coughs at all, has regained nearly all the flesh she lost, has no hoarseness, and is regularly at her post in one of our public schools for colored children.

This last I deem the most remarkable case of all reported. The second stage of phthisis was well advanced, and all the graver symptoms which mark it were present. The usual treatment, including cod-liver oil and the hypophosphites, had been faithfully tried, with but slight improvement; while, from the commencement of the use of malt and oil, improvement has been steady and marked.

This has, with good reason, been called the age of physiological therapeutics. The rapid and practical strides which physiology has of late years been making, are taken advantage of by the therapeutist as foundation stones upon which to base a system of rational medicine. The introduction of pepsin into pharmacy was an important practical application of physiological science, as also the more recent use of pancreatine in the administration of cod-liver oil, etc.

The introduction of malt into American practice, which has only become general since home houses have undertaken its manufacture, bids fair to play a more important part in physiological medicine than that of either pepsin or pancreatine.

Extract of malt is, in the main, two things; namely, digested starch and sugar, and the digester of starch and sugar. Its other ingredients or properties may fairly be said to hold a minor rank in importance to these two qualities.

No class of food is of so great interest to the physiologist as that comprised in the "second class of proximate principles;" namely, starch, sugar and oils. Of albuminous matter, the necessity and the use are readily apparent; but of these other foods, and especially so of the two former, to attempt a comprehension of the part which they play in the economy, is to reach beyond the mere matter of tissue-building to the subtiler questions that enshroud animal heat, and the other various and complex phases of vital force. Neither starch nor sugar can be considered as belonging to the tissue-making food, so vastly disproportionate are the amounts of them consumed to the mere traces of them which are to be found within the organism. They enter the blood only to disappear from it; and are in constant demand, being largely eaten at each meal. The following tables, taken from Dalton, give some idea of the amount of saccharine and amylaceous food one consumes. And here let me remind, by way of digression, that starch, *as starch*, never gets beyond the alimentary canal; that by digestion it is completely transformed into glucose, or digested sugar, and as such enters the portal venous system. In view of this fact, Flint, Jr., does not mention starch as a proximate principle of the human organism, but treats of it as sugar:

COMPOSITION OF WHEATEN BREAD.

Starchy matter (starch, dextrine, glucose),	56.7
Albuminous matter (gluten, etc.),	7.0
Fatty matter,	1.3
Mineral matter (calcareous, magnesian and alkaline salts),	1.0
Water,	34.0
	100.0

COMPOSITION OF THE POTATO.

Starch,	20.0
Albuminous matter,	2.5
Sugar and gum,	1.1
Fatty matter,	0.1
Cellulose,	1.0
Mineral and vegetable salts,	1.3
Water,	74.0
	100.0

AN AVERAGE DAILY RATION.

Albuminous matter (grammes),	130
Starch and sugar "	300
Fat "	100
Mineral salts "	20
Water "	2.000

By these tables it will be seen that albuminous matter constitutes rather less than one-fifth of the entire food for a healthy adult in active occupation. No words are necessary, after these facts, to impress upon the physiologist the paramount importance of starch and sugar as articles of food, and the great necessity for their proper digestion and assimilation. In the normal processes of digestion, the saliva transforms to a certain extent the starch into glucose; while this act is completed, not (as is stated by most writers on malt extracts) by the pancreatic juice, though this helps a little, but by secretion of the duodenal glands (of Brunner and Lieberkuhn); a viscid, alkaline juice, not copious, but endowed with the power of very rapidly and completely transforming both starch and the varieties of sugar into glucose $C_6H_{12}O_6$. The change of starch is a simple one, thus, starch $C_6H_{10}O_5$, and water $H_2O =$ glucose $C_6H_{12}O_6$. It is in the region where intestinal juice is produced (the duodenum) that digestion is most actively performed. Here the gastric juice finishes its work, aided by the pancreatic juice, which also digests the fat; while many of the ills that are attributed to the stomach, and still more, that are laid at the door of an absolutely healthy liver, arise from disorders of secretion and absorption, in this, which has been aptly called the lesser stomach.

The physician, who, in the management of dyspepsia, addresses all of his treatment to the stomach proper, will quite often meet with cases he can not master. How many such cases there are; cases of duodenal dyspepsia, wherein the doctor having failed in the use of pepsin, and mineral acids, and strychnia, and quinia, deems the liver the offending member, and bends all of his energies to its subjugation. The prevalence of amylaceous indigestion, and (excluding drunkards) the comparative rarity of liver diseases, are not sufficiently recognized. The cure of obstinate dyspepsia by lager beer (by no means uncommon), a remedy not at all calculated to benefit the liver, has done not a little toward teaching us to more carefully classify our cases of dyspepsia, and to treat them accordingly.

How far extract of malt is of use, and in what class of cases, are questions that time alone can answer for us. In Germany it is firmly fixed in the front rank among remedies. Some idea of what it may be used for, may be gained by the following analysis of one of the brands of American malt:

TROMMER'S EXTRACT OF MALT.

Malt sugar,		46.1
Dextrine, hop bitters, extractive matter,		23.6
Albuminous matter (diastase),		2.469
Ash	Phosphates,	1.712
	Alkalies,	.377
Water,		25.7
		99.958

The first of these ingredients is starch and sugar, ready for absorption. The third (diastase) is the analogue of ptyaline (of saliva) and of the similar ingredient of intestinal juice. It is present, as will be seen, in nearly two and a half parts per hundred. In saliva, ptyaline exists in less than seven and a half parts *per thousand* (7.352 Dalton). I speak of diastase as the analogue of ptyaline. If it differs at all in its action from the latter, it is in a greater readiness and completeness with which it transforms starch into glucose. In malt extract, its properties are preserved, and the glucose retains its integrity; while in beer, the process of fermentation has destroyed nearly all of these qualities, and produced alcohol, with, though to but a slight degree, its objectionable features.

Malt extract, with its combinations, has been recommended and deserves a trial in the following diseases: anæmia, chlorosis, marasmus, dyspepsia, neuralgia, insomnia, pulmonary and bronchial affections, dysentery, constipation, scrofula, convalescence from exhausting diseases, etc. It may be had combined with any of the standard tonics or alteratives, for which it makes an admirable vehicle.—*Louisville Medical News.*

Predisposition and the Bacillus Tuberculosis Essential Factors in the Production of Consumption of the Lungs and Air Passages.

BY HARVEY L. BYRD, M. D., ETC.

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It appears almost absolutely certain that investigations which are now being made will establish the fact that a large majority of the numerous diseases to which mankind is exposed, originate in certain germs, or micro-organisms, that are received through the atmosphere and the water by which we are surrounded, and which are so necessary, not only to our comfort, but very existence. All medical men are therefore, or should be, interested in the settlement of the controverted points in regard to any of the bacilli, or micrococci, which have been brought before the profession. The matter of the *bacillus tuberculosis* as announced by Koch, and sustained by many other investigators, may still be regarded as unsettled. There appears to be, however, a preponderance of evidence in favor of Koch's investigations and statements that is strongly in the direction of an ascertained fact. But whether he and his followers have found and accurately described the true agent concerned in the development of consumption, or not, there is certainly no lack of ability and energy displayed in the work they have thus far accomplished, and there are probably very few physicians who do not feel that if the essential micro-organism that produces that disease has not yet been discovered, it will soon be found.

As far as can be gleaned from the medical periodical literature of the times, the profession generally seems to be yielding to the opinion that the terrible malady which appears at the caption of this article, and which is dragging annually so many of the young and gifted of our race to untimely graves, is brought into activity through the agency of germs or organisms from without the body.

It is not my purpose, however, to dwell upon this point in the present communication to the *Monthly*. Nor is it necessary to enter the arena of controversy or to zealously espouse any one of the theories concerning the essential nature and pathology, of consumption, or whether a micro-organism having the ability to develop that disease in the lungs or elsewhere has been made manifest to our visual organs. But I purpose to offer a few practical ideas for what they may be worth at this particular juncture. And I will therefore remark that of all the ills alluded to in the initiatory paragraph of this paper, consumption is of pre-eminent importance to the physician, at least as all the races and conditions of mankind are more or less exposed to its ravages now. I say *now*, because consumption was almost unknown to the genuine negro half a century since, and was of quite rare occurrence three or four decades ago. But more upon this point at a subsequent time.

If the proposition is true that all the diseases from which mankind suffer—except, of course, those which result from traumatisms, caused by the action of mechanical forces, etc.—are due to the presence of germs, bacilli, or micro-organisms, existing or floating in the air or water, and I am quite satisfied that such is the fact, we have a sure but probably not fully appreciated, at present, foundation upon which to commence the explanation of all of them, and channels thus opened through which to proceed to the *ultima thule* of scientific investigation if we will. And should *heredity* be admitted at its proper value, as a factor in our studies of cause and effect, in such investigations, we will find our deduction and conclusion in regard to the origin and development of diseases rendered much less difficult of accomplishment. The laity, as well as the profession, are enabled to see the resemblance of the parent as it may be transmitted in the *tout ensemble* of features in the offspring. And in some instances a single feature is sufficient to impress one with such a resemblance to a progenitor, or an ancestor, two or three generations back, as in the shape and development of the nose, mouth, etc. As a case in point, the thick lips in the imperial house of Austria may be mentioned.

Again, supernumerary fingers and toes have been known to occur in a family for two or three generations. These facts need no argument or further illustration for their proof, and they should afford reasonable assurance, if the fact had not been developed in some instances under the scalpel, of peculiarity of form and structure in the *internal* organs and tissues, as of hereditary transmission from generation to generation!

All physicians are aware that numerous cases of *predisposition* to certain diseases are to be found in almost every community, and *accoucheurs* know that not only peculiarities in the form of the pelvis and genital organs in the female, are transmitted to the daughter in many cases, but that even the *physiological* action of the uterus itself will be marked in certain families for several generations. If we add to these *hereditary* transmissions, as I feel sure that we should, a *sthenic* or an *asthenic* condition as of undoubtedly the same origin, in many cases, at least, it will be found that too much emphasis has not been given to this point in the present article.

Should the conciseness attempted in the foregoing sentences give rise to seeming ambiguity upon any of the points discussed, it will readily disappear when the two leading factors adverted to already, viz.: the *parasite* and *heredity* are properly considered in the development of consumption and its consequences.

The soil, so to speak, is prepared hereditarily for the action for the germs ere they find their lodgment in the tissues of the respiratory apparatus, or elsewhere. Brought thus into juxtaposition, or into contact with each other, the seed finds a genial soil, and consumption or tuberculosis is the outcome. It would seem thus to be logically certain, though we may not be able to demonstrate the fact with mathematical accuracy and precision, that if the bacillus tuberculosis has been actually discovered, we have in the two factors just mentioned the means of clearing away the mists that have developed consumption, and have consequently opened up to us a rational and correct application of the operative agents in the treatment of that dreaded scourge of our race.

When we add to what has been said already, the fact that certain *parasites* and *germs elect* certain tissues and parts of the organism for their abode or development, and can not, in some instances at least, be made or induced to trespass much, if any distance beyond the preferred locality, or that best suited for their operations, it will be readily understood how it is that certain families are greatly afflicted with consumption in certain climates and places, whilst others having no hereditary preparation for the germs of that disease to act upon, remain the neighbors of the unfortunate ones for generations, entirely free from its ravages.

What is true of the ravages of the bacillus that produces consumption of the lungs and air passages, is equally true, I have no doubt, in regard to the germs of other diseases under other circumstances. Twenty-nine years ago I had the temerity to state and insist upon the germ origin of yellow fever; and from my experience in it, and observation and experience also, in almost all the other diseases that afflict humanity, from that time until now, I am fully convinced of the correctness of what has already been stated in this paper, viz: that all the diseases from which mankind now suffer, especially those which result from traumatisms, or the action of mechanical forces, including heat, cold and electricity, etc., are due to, or have their origin in germs, bacilli, or micro-organisms existing in the atmosphere or water, or from *contact* with those suffering with what have been known as contagious or infectious diseases resulting from specific germs, or bacilli.

As there are probably very few physicians who are readers of the *Monthly*, who would be likely to dissent or controvert the statements made in the above paragraph, I will trespass but a little further, and endeavor to reiterate with as much perspicuity as practicable, that a *predisposition* must exist in the lungs or air passages, whether *hereditary* or *acquired*, as a *condition precedent* to the development of consumption, and that a certain germ or micro-organism, probably the *bacillus tuberculosis* of Koch, must find a nidus or lodgment upon such predisposed surface or situation in order to the existence of that terrible scourge of humanity. With the foregoing views, honestly entertained, I think we may safely hope, and indeed confidently expect, with its fiulfillment, ere the termination of the present decade, and that physicians will not only be able to *prevent*, but actually *cure* consumption, when not too far advanced, and that too upon strictly scientific principles. On a subsequent occasion, some of the agents and means in accomplishing this important object may be adverted to.—*Va. Med. News.*

On the Treatment of Palpitations of the Heart.

BY PROFESSOR GERMAIN SEE, MEMBER OF THE ACADEMY OF MEDICINE.

PALPITATIONS consist in an increase of the activity, though not of the energy of the heart. From an etiological point of view they may be arranged under four heads: 1, Nervous palpitations; 2, Physico-dynamic palpitations; 3, Anæmic palpitations; 4, Toxic palpitations.

I shall treat of all these species of palpitations, but not exactly in the order given, and for convenience will begin with the last, which I have called

TOXIC PALPITATIONS.

The first care of the physician when he finds himself in the presence of a patient who has, or fancies he has, real palpitations, should be to examine into the daily hygienic and dietetic habits of the patient. The abuse of tobacco, the immoderate use of tea, coffee, alcohol, may produce palpitations with or without arythmia, as well as intermittences. If, in order to obtain prompt abandonment of the abuse, it is generally sufficient to warn patients of the danger which menaces them, it is no less true that sometimes one meets stubborn resistance in the case of inveterate smokers and drinkers, to whom the vicious habit has become a passion and almost a necessity.

In these cases it is necessary to proceed by a gradual process of withdrawal, and especially where the prolonged use of tobacco has created a sort of habituation—a veritable accommodation in the organs and functions, which it would be dangerous suddenly to suppress. There are a great many smokers whose easy and healthful digestion depends on the cigar or pipe which they smoke after meals; others find the best remedy against constipation to be a pipe smoked on an empty stomach; others maintain that their brains will not work to advantage without the customary smoke. It is precisely these individuals who become subjects of palpitations, and if you would treat them successfully you must not too suddenly and completely wean them from tobacco. Better by far limit the quantity of tobacco than to impose on them absolute deprivation, which, moreover, it is very difficult to enforce. All that you need do, in order to obtain a cessation of the palpitations, is to transform abuse into moderate use.

It is much easier to arrive at the suppression of the use of tea and coffee. It is more difficult to procure an abatement of alcoholic excesses, which, by the way, seldom and only for a brief period, manifest themselves by palpitations; they soon terminate in degeneration of the heart.

PHYSICO-DYNAMIC PALPITATIONS.

When, after an earnest inquiry, you have succeeded in eliminating from the group of probable causes the influence of poisons and of substances which trouble the action of the heart, the duty of the physician will be to investigate the state of the heart, its orifices, its valves, its proper texture, its lining membrane.

It is deserving of remark that it is precisely the larval affections, that is to say, those which do not produce any abnormal murmurs, as is the case with simple dilatation of the heart, which oftenest give rise to palpitations. In these cases digitalis finds its proper place; it tones up the debilitated heart and gives regularity to its beats.

DIGITALIS IN THE PALPITATIONS OF ORGANIC DISEASE.

When we are concerned with hypertrophies consecutive to valvular insufficiency or constriction of the orifices, there is a first question to answer before we can decide on the treatment. Is this hypertrophy sufficient or not to compensate for the obstacle to the outflow of blood in the case of constriction of the orifice? is it sufficient to enable the ventricle to clear itself, in the event of regurgitation from leakage of the valves? If so, that is to say, if the hypersarcosis is sufficient to enable the heart to fill the arteries, digitalis is useless, without being positively dangerous, unless by long continuance in its use.

Let us take an example: In Corrigan's disease (aortic insufficiency) the left ventricle constantly grows thicker and stronger by reason of the extra work imposed on it in propelling into the aorta the regurgitant blood, as well as that coming into its cavity from the auricle. As long as there is no venous stasis in the lungs, or œdema of the lower extremities, one may take it for granted that the hypernutrition of the ventricle is sufficient to overcome the disastrous effects of the reflux. Why then prescribe digitalis? Wait a while; the time will come, with almost absolute certainty, when, unhappily for the patient, the action of the heart will be troubled. There will be palpitations which will necessitate the use of digitalis, and in this case you are not to fear the effect of the drug, even if the heart's impulse suggests exaggerated energy; it is but the semblance of increase of energy. On the other hand, digitalis does not do harm when given for the hypertrophy itself. Heretofore it has been generally believed that hypertrophy may be excessive, and render one liable to danger from active congestion of the brain or lungs. This is a mistake, and it is as much as ever if the hypersarcosis is sufficiently pronounced to effectually overcome the obstacles to the outflow or regular progression of the blood. No one has ever seen active cerebral congestion result from exaggerated afflux of blood to the brain by reason of a hypertrophied heart. In the mechanical diseases of the heart you have not active but passive congestions, the heart having no longer sufficient contractile force to enable the blood to pass through the capillaries and veins. Therefore there is no absolute contra-indication in this disease to the administration of digitalis.

The indication for digitalis, however, becomes very plain if dyspnœa or œdema comes on, showing that the heart is flagging in its work of blood-distribution. The same may be said of palpitations arising from hypertrophy in general. Suppose, for example, that you have a case of compensatory hypertrophy, accompanied with palpitations, in a nephritic patient (this would be a rare event, for arythmia would be the rule); you may without hesitation prescribe digitalis. In spite of affirmations which have recently been made respecting the danger of these hypertrophies and the part which has been attributed to them in the production of uræmic cerebral accidents, digitalis does not augment the hypertrophy; the function of the hypertrophy is that of a moderator, and digitalis can in no way render harm.

There are certain palpitations due to hypertrophy where digitalis is of less utility. I refer to hypertrophies attending adolescence; sometimes these result from displacements of the heart by faulty chest-conformation. These hypertrophies are attended with palpitations; but it is also noteworthy that young men may suffer from palpitations from other causes, and that these palpitations may be about as troublesome and persistent as those which result from hypertrophy. Onanism is a fruitful source of such functional palpitations. As to the diagnosis, the hypertrophies I am speaking of may be known by augmentation of the volume of the heart, as shown by increased dullness, and displacement downward of the apex of the heart. These signs coexisting with palpitations would suggest that we have to deal with the hypersarcosis of adolescence; in other words, with a sort of exaggerated and precocious development of the heart muscle, and this is about the only kind of cardiac hypertrophy which frequently gives rise to palpitations without necessary degeneration or atrophy of the myocardium.

Now in these cases digitalis is not needed, if there be faulty conformation of the thorax; a well-directed course of gymnastics is far preferable. If there be no thoracic malconformation, digitalis may be tried, and if the palpitations be not quieted in the course of a few days you must find some other remedy; bromide of potassium and chloral often render real service in these cases. I have not seen any good from hydrotherapy.

I have now an important remark to make respecting the usage of this medicament. During these late years some authorities have been very precise in their statement of the indications and contra-indications of this eminently useful remedy. They have recognized in its therapeutic applications certain inconveniences, dangerous and even mortal effects. What has troubled them the most has been both the prolonged action, and the slow, tardy action of the drug. This only goes to show their ignorance of the slow, and at the same time cumulative, effect of therapeutical doses of this medicament. More than twelve years ago I divided medicaments, from the point of view of their promptitude and duration of action, into two classes; the one slow and cumulative, of which digitalis is the type; the other of medicines, like the salts of soda and potash, whose action is immediate, but which are as rapidly eliminated. In this last category may be ranged salicylic acid and the salicylates, which act with astonishing promptness, and undergo elimination almost as soon as they are absorbed. Is it a fault of these remedies—of some that they stand too long in the economy, of others that they leave it too quickly? It suffices to know these important peculiarities, that we may avoid inconveniences by not allowing digitalis to accumulate too much in the organism, and by not suppressing too soon the salicylates.—*Medical Record.*

Jamaica Dogwood.

BY C. W. TANGEMAN, M. D., CINCINNATI, O. *

When speaking of this drug to the readers of the *Therapeutic Gazette*, it is unnecessary to give its botanic history, who introduced it, what part of the tree is used, etc., since that part of the subject has been treated of so exhaustively in the back numbers of the *Gazette*. Our object at the present time is to show under what circumstances Jamaica dogwood is indicated, why it is preferable to opium and its preparations, and in what dose it can safely be given. It may be said of us that a mania for new things has taken possession of us, that we want to make a reputation by crying down the use of old and reliable drugs and introducing substitutes without any cause. Though this criticism is heard quite frequently, we can put it down with a good deal of certainty that that individual is not capable of making observations, and has not arrived at the point to know that there are any objections to the use of opium in certain pathological conditions. The greatest trouble until now has been to find a substitute, to find a remedy that possesses the good qualities of opium, and is without the objections. This article has been furnished us by the enterprising house of Parke, Davis & Co., and all that remains for us to do is to convince ourselves of the merits of the preparation. When investigating a new drug, we must be on our guard to avoid two things that not infrequently cause unreliable results. A genuine article is always a pre-requisite, and then it must be placed in the hands of an accurate and unprejudiced observer, one who experiments with a view of adding to the science of medicine, and not for the sake of publishing stuffed statistics, which is only too often the case: then the results will be definite for or against the remedy in question. An advance in the science of medicine creates a demand for new remedies. Opium has been, and presumably always will be, the main narcotic; but since its action is more thoroughly understood and the diseases in which it is indicated are better classified, there has been a desire by the profession for a drug that will act as an anodyne, and leave no constitutional effects after its first action has worn off. The unpleasant after-effects of the drug, even when intelligently and scientifically administered, make it very desirable that some substitute be brought forward. We are ready to present Jamaica dogwood as the desideratum. We can say without hesitation that its use is not followed by any of the systemic effects that make opium objectionable. It requires some time for a drug to establish itself to be recognized by the profession. Newly-discovered remedies fluctuate up and down, not unlike stocks on "change;" some go up rapidly only to fall into disuse just as quickly; others often being tossed to and fro for some time, finally establish themselves. The trial of new drugs is much discouraged by the unreliable articles that are thrown upon the market simply for the sake of gain. It is almost a daily occurrence with the general practitioner to meet cases where he is at a loss to know what to prescribe; previous experience with the patient has taught him that opium or its salts are not tolerated: this is one instance where dogwood is indicated. In some pathological conditions opium is indicated for the very effect that it is desirable to avoid in other cases; therefore our efforts are not so much to displace or supplant as to enrich the armamentum of the physician.

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Three months ago I introduced Jamaica dogwood at the dispensary of the Medical College of Ohio, and to judge from the results that I obtained, there is no doubt that the remedy will work its own way if only given a trial. To give the reader an idea in what class of cases the drug was prescribed and the dose necessary to produce the effect, I append the following history of cases. The cases have not been selected for the purpose of making a good report, but taken just as they presented themselves for treatment at the clinic:

Case 1.—Patrick M., æt. 45, made application for the relief of pain in his eye; he was suffering from the effects of an injury to the eye-ball, which caused a general inflammation of all the structures of the eye: panophthalmitis. Patient complained of not having slept for a number of nights on account of the severity of the pain. Jamaica dogwood was ordered in half-drachm doses to be repeated every two hours during the afternoon and evening. Next morning patient stated that he had slept until 3 A. M., and felt very much refreshed. The dose was now increased to one drachm every three hours, and the effects were more lasting, but pleasant in every respect.

Case 2.—J. R., æt. 38, boiler-maker by trade, was struck in the eye by a piece of iron from a steam shears five weeks prior to his application at Prof. Seely's clinic. During the five weeks the patient had been treated by a homœopathic physician, who had prescribed sulphate of morphine for the relief of the almost intolerable pain that the patient was suffering in consequence of an irido-cyclitis that had been set up by the injury. The course of this disease is usually very tedious, and the effect that it has on the patient is very depressing, to say the least. The constant use of morphine only increases this effect by disturbing digestion, binding up the bowels, etc., while the long continued use of the drug may become a habit with the individual later on. In this class of cases dogwood is, beyond a doubt, far superior to any anodyne that has ever been used, as will be seen in the following: Morphia was discontinued and fluid extract of Jamaica dogwood in teaspoonful doses was ordered to be taken as often as necessary to control the pain. Patient took two doses in the morning and slept quietly all afternoon; it was repeated and he slept all night, making his appearance at the clinic with a bright face and feeling very much refreshed after the sleep he enjoyed the previous night. He felt so much better after the use of this drug that he himself noticed the difference, though he did not know what he was taking. He has continued its use for nearly two weeks and it still has the same effect, and is given in the same dose. On being asked the question how are your bowels and stomach, the reply was: "Oh! just right; my appetite is always good now, and I must go out once a day regular." Could you ask anything better than such an answer? It acts just as promptly and just as safely as morphine.—*Therapeutic Gazette.*

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Transmission of Diseases of Animals to Man.

During the last few years rapid strides have been made in the investigation of diseases that may be transmitted directly or indirectly from the lower animals to man. It seems to be proved beyond doubt that foot and mouth disease is communicable by immediate contagion, and also by the unboiled milk of cattle suffering from the epidemic, even when the udders and teats are not visibly affected. With equal certainty outbreaks of enteric fever and other specific disorders incidental to humanity have been traced to the use of milk, although, as pointed out in our last issue, it is a moot question whether the milk obtained from infected districts is charged with the poison during the process of secretion, or whether it becomes subsequently contaminated by admixture with impure water. At the present time there is a serious outbreak of enteric fever in Dundee, which appears clearly traceable to the milk-supply of the locality invaded. From time to time cases have been recorded where persons who have eaten the flesh of animals affected with some epidemic disorder are said to have suffered not only from severe gastro-intestinal disturbance, but also from the more specific manifestations of the disease. The statements, however, with regard to the degree of liability to infection from such a source are very conflicting. Taking epidemic pleuro-pneumonia for example, the balance of evidence seems to show that there is almost complete immunity from the chances of contracting the disease itself, and that there is not much to be feared in the way of indefinite local or constitutional symptoms. With regard to the splenic apoplexy or braxy of sheep, different opinions have been given. Thus, Professors Simonds and Gamgee assert that pigs and dogs have died within a few hours of eating the flesh of animals dead of the complaint, whilst McGregor, on the other hand, says that dogs devour it with impunity; but inasmuch as mention does not appear to have been made in each case as to whether the meat was cooked or not, the grounds for comparison are not very reliable. One thing seems clear, that no ill results follow the ingestion of such meat by the human subject provided it is properly cooked, for Scotch shepherds consume it in large quantities, certainly with relish, and probably with profit. A few cases are on record in which persons have apparently contracted malignant pustule by eating the flesh of animals affected with splenic fever, a highly specific contagious disease; but here again the negative testimony is very strong the other way. In this disease the organism—bacillus anthracis—which constitutes the essential *materies morbi* is very tenacious of life, the spores resisting desiccation and surviving a temperature of 100° C., so that imperfect cooking may not suffice to kill them; but since the contagiousness of splenic fever is so marked, it may be that cases set down as having arisen from the ingestion of meat may very well have owed their origin to inoculation. We have known the flesh of cows stricken with puerperal fever eaten with perfect impunity, and any one who has had experience of English farm-life must be aware that it used to be the exception rather than the rule to bury the carcasses of animals killed to save them from spontaneous death. There was formerly a wide-spread and deeply rooted belief among country folks that no harm could come of eating the flesh of diseased animals if the blood was thoroughly drained from the vessels. The stringency of the laws forbidding the exposure of such meat for sale has, to a great extent, put a stop to the practice in question, and the opinion is daily gaining ground that very grave consequences may ensue from eating the flesh of animals that have recently suffered from any infectious complaint. If we were in a position to say—which we are not—that enteric fever can be directly transmitted from cattle to man by means of milk, we should have strong grounds for believing that the flesh also might be the vehicle of the contagion.

Although on the whole we take it as not proved that any great danger is to be apprehended so long as meat is well cooked, we must unhesitatingly subscribe to the arguments advanced against the indiscriminate use, as an article of diet, of the carcasses of cattle that have had a specific disease; for apart from the possibility, remote though it be, of contracting by this means such disorders as enteric fever, we know, "from general principles, that all diseases must affect the composition of flesh, and as the composition of our own bodies is inextricably blended with the composition of the substances we eat, it must be of the greatest importance to health to have these substances as pure as possible" (Parkes).

On the other hand, it must not be forgotten that the wholesale condemnation of meat loosely described as "unfit for human food," causes a serious financial loss to the community, keeps up the prices, and to a great extent puts the commodity beyond the reach of the poorer classes. When it is borne in mind what through cooking is capable of effecting, and what a powerfully destructive apparatus the digestive system is, the question arises, Is not the antidote too strong for the bane? It seems a pity that we are not able to determine exactly where the line should be drawn in deciding between meat that is positively injurious to health, and that which, if properly prepared, is conducive to it. As regards the use of meat in a state of putrefactive decomposition, there can scarcely be two opinions, nor can there be much wrong done in proscribing carcasses mottled with trichinæ or cysticerci, but it is well worth serious consideration whether the flesh of animals affected with foot and mouth disease should, without exception, be cast away.—*Lancet.*

Puerperal Affections of Mother and Child.

THE transmission of peurperal affections from mother to child through the milk seems to be shown in a striking manner in this paper. Dr. Gaulard first discusses a case where a puerperal affection is the result of exposure to erysipelas, and secondly a case where puerperal lymphangitis gives rise to erysipelas. The first case is of a woman confined by the doctor while attending a number of cases of facial erysipelas. Eight days after her confinement she is seized with symptoms indicative of puerperal uterine lymphangitis, which results in an abscess of the broad ligament, which discharges itself through the rectum. The second case was taken a few days after confinement with symptoms of puerperal lymphangitis, but continued to nurse her child, which appeared healthy with the exception of a redness of the eyelids, for which slightly astringent lotions were used to prevent a possible invasion of ophthalmia. The umbilicus did not cicatrize, and very shortly an erysipelatous redness invaded the pubic region, scrotum, thighs, legs, feet, buttocks and lumbar region, not at any time passing beyond the umbilicus. The child at the same time suffered from fever, insomnia and diarrhœa. The scrotum, which was affected by some effusion into the tunica vaginalis, became darker, and finally sphacelated—the slouth separated, leaving a bare wound, which took on a healthy appearance. The child took the breast with avidity, but soon vomited all the milk taken in; the diarrhœa became very frequent, and the stools of a very unhealthy nature, so that it was decided to take the child from the mother and give her to another nurse, when all of these symptoms disappeared rapidly. The mother was allowed to give her breast to the nurse's child, an infant of four or five months, vigorous, healthy. It soon took on this marked redness in different parts of the body, of a fugitive nature, appearing and disappearing suddenly in one or the other region, without the general health being apparently affected. The mother's milk, examined carefully, presented nothing abnormal, and the child, after entire recovery, was returned to its mother's breast, who nourished it satisfactorily.—GAULARD. *Bulletin Medical du Nord, Mars*, 1883.

The Diagnostic Significance of Tubercle Bacilli in Childhood.

THE *London Medical Record*, June 15, 1883, says:

The observations hitherto placed on record with reference to bacilli of tubercle are derived from the disease in adults. Dr. Demme, of Berne (*Berliner Klin. Wochensch.*, April 9), submits parallel researches pursued in cases of disease in children, noticing at the same time the difficulty that exists in obtaining expectoration from children under three years of age. The investigation was carried out in forty-four cases of tubercular disease. In six of these (tubercular meningitis and kidney disease) the examination was microscopic. In the remainder the sputa, or fæces, were examined a few days before death. The ages of the majority of these patients were from one to four years, and smaller proportion from five to ten years. The earliest age was eighteen weeks. It was a point of much interest and importance to watch the development of phthisical disease, from measles or whooping cough, after the first detection of bacilli in the expectoration, and the proportional rapidity of the disease, in relation with the greater or less abundance of bacilli. In three cases of acute miliary tuberculosis, the bacilli were only discovered after death in one instance, and in the other two they were in the sputa only two or three days before death; confirming the statement of Lichtheim that the expectoration in acute miliary tuberculosis does not contain bacilli. Bacilli in considerable abundance were found in cases of lupus; also, in a case of ozæna in an hereditary tubercular constitution, the tubercle-bacilli were found in the mucous surface of the nostrils. This patient died, after a short illness, of tubercular meningitis. Miliary tubercles were found in the course of the vessels of the membranes, and tubercle was found in the substance of the cerebrum and cerebellum. The lungs were free from tubercular disease, as were also the abdominal viscera. In the tubercle of the pia mater, a scanty sprinkling of bacilli was found. Referring to the preceding observation, Dr. Demme remarks that tubercular disease of the mucous membrane of the nostrils is seldom, if ever, seen by itself alone. In this case, the author suggests the transmission of the bacilli from the nares by the way of the vessels to the meninges.

A Scholarly Physician.

THE seventh Congress of the Geodetical Society meets appropriately in Rome, the capital of the country which, more than any other member of the State system of Europe, has witnessed modifications of its surface through earthquakes and floods. The sittings were opened by his Excellency, Guido Baccelli, sometime Professor of Clinical Medicine in the Roman University, and now, as Minister of Public Instruction, earning the gratitude of Italy by promoting her education, and the gratitude of the modern world by bringing the ancient nearer to it, through the splendid excavation of the Forum Romanum and the palaces of the Cæsars. Addressing a highly cultivated audience, which included representatives of science from both hemispheres, Dr. Baccelli had recourse to the Latin language, which he speaks with the ease and elegance of his native Italian. The Arbuthnots and Heberdens of last century—the Gregorys and Halfords of this—would have felt a pleasurable thrill in listening to the sonorous periods which seem to echo their own:—

"Scientiarum cultus, quacumque alia re pacis amicior, per vos præstantes sapientia viri, ex Capitolii fastigio, novissimo lumine circumfusus, Europæ universæ pacis omen faustum felixque sit. Italia suo fato redempta, Humberti regis populique sui in fide ineluctabili et fortitudine confisa, vos omnes etiam atque etiam ex corde salutat. Ipsa enim sentit quod nihil sibi esse debet antiquius quam doctrinas omnigenas colere, et cunctos doctrinis auctiores undecumque veniant, amica singularique observantia prosequi. Fœdus istud firmissime initum maria montesque prætervolat et humanam familiam sublimiori amplexu solatur. Septimus hic vester conventus præ ceteris erit memoria dignissimus: vel quod XX*m* institutionis annum commemoret; vel quod Europæum institutum in Cosmopoliticum vertat; vel quod institutionis Conditori atque Nestori suo, domi gravissima ætate detento, solemnia virtuti præmia decreverit. Plaudimus ergo *Baeyero* cujus nomen apud seros nepotes, et opere suo et munere vestro, increbrescet. Sinite mihi nunc quæso vobis omnibus Italiæ nomie gratias quam maximas agere. O vos terque quaterque felices quibus datum erit nobilem utilem optatissimamque metam contingere. Arrideat vestro fortuna labori, et diem hanc nulla unquam delebit oblivio."

TRANSLATION.

May scientific culture, above all things pacific in its tendency, irradiated with the latest lights, shed from the Capitoline Hill, through you its illustrious votaries, a fair and happy omen for the peace of entire Europe. Italy, redeemed by her high destinies, strong in the unconquerable faith and fortitude of King Humbert and her people, extends to you the heartiest of welcomes, feeling as she does that nothing ought she to hold more dear than the pursuit of learning in all its departments, and the friendly and appreciative recognition of all its votaries, from whatever quarter they may come. That firmest bond of union transcends seas and mountains to enfold in its fostering embrace the family of mankind. This, your seventh congress, will beyond it predecessors be memorable, whether as celebrating the twentieth anniversary of the association, whether as converting a European into a cosmopolitan institution, whether as having decreed to its founder and Nestor—detained as he is at home by extreme old age—the august rewards of merit. Be our plaudits therefore raised to Baeyer, whose name down to a remote posterity will increase in lustre through his achieve-

ments and through your loyal service. Permit me now, in the name of Italy, to tender you, one and all, the most cordial thanks. Thrice and four times happy you whose guerdon it will be to reach a goal so lofty, so useful, so much to be desired. May fortune smile on your labors, and the memory of this day will never be effaced.

General Baeyer, whom Professor Hirsch at the banquet which followed at the Hotel Quirinale eulogized as the "father of the international geodetic family," has received a medal specially coined for the occasion. It is of massive gold and exquisite workmanship, one side presenting in relief the general's portrait, and the other bearing the following inscription:—

"J. J. Baeyero—Qui ad terræ mensuras—Communi studio eruendas—Nationum sodalitium excitavit—Itali laborum socii—In conventu septimo—Romæ MDCCCLXXXIII."

TRANSLATION.

To J. J. Baeyer, who instigated the community of nations to co-operate in the measurement of the earth's surface. From his Italian fellow-workers at the seventh congress held in Rome MDCCCLXXXIII.

Able speeches showing the practical uses of geodesy were made by Professor Oppolzer, Signor Sella (the profoundest of Italy's financiers), Professor Helmholtz and Dr. Baccelli, who brought the toast list to a happy conclusion: "Gentlemen, you have heard different languages expressing one thought. I drink to the unity of thought in different languages."

Operations on the Kidneys.—Nephrectomy.

Mr. J. Knowsley Thornton gives the record of three successful cases of nephrectomy in the *Lancet.* The first was published June, 1880, but is again given in connection with the others. It was performed on a child of seven, who had suffered with swelling of the abdomen since she was two years old. The diagnosis of renal tumor having been made, an antiseptic aspiration was performed, resulting in the removal of six pints and a half of rather dark and cloudy urine. Two months later the tumor had re-filled and the left kidney was removed through an incision in the median line to the left of the umbilicus. Bichloride of methylene was the anæsthetic used. The ureter was found to be merely a thin fibrous cord. Wound healed by first intention on the sixth day, and the patient was running about the ward on the fourteenth day.

The second case was in a woman of 26, who, after her third pregnancy, eleven days after labor, suffered from inflammation in the right iliac fossa, followed by pain and swelling in the left leg. Six weeks after delivery pain persisted in the right side, which was spasmodic and along the course of the ureter to the right thigh. A fluctuating tumor of considerable size was found in the right loin, and the urine was loaded with pus, ammoniacal and offensive. The kidney was cut down upon through the loin, and Mr. Thornton notes the much greater amount of hemorrhage as compared with the abdominal section, and the very imperfect knowledge to be obtained as to the condition of the kidney. A sacculated kidney was found with very offensive pus; two drainage tubes were introduced; the greater part of the wound closed and antiseptic dressings applied. The second day after the operation the bladder urine was free from albumen. The urine soon showed signs of carbolism, and on the fifth he changed to eucalyptus gauze, but in a very short time pus soaked through sixteen layers of the gauze and teemed with bacteria. Ultimately the wound healed fairly well, but the temperature rose, pain increased, the appetite failed, and thirty-five days after the first operation the kidney was removed through the abdominal walls by an incision along the outer border of the right rectus abdominis. After removal, the wound was sponged with tincture of iodine, and as there was still some oozing, perchloride of iron was applied, a drainage tube was used, the wound closed and the end of the ureter brought outside and fastened with a pin. The kidney weighed 1 lb. 2½ oz. The wounds healed completely on the eighteenth day, after which the patient passed from a pint to a pint and a half of healthy urine daily. The constitutional disturbance was decidedly less after the nephrectomy than after the nephrotomy.

The third case was in a woman, æt. 58, suffering from a large, fluctuant tumor in the right side of the abdomen, containing pus, which had been removed four times by aspiration; pus in the urine, and chronic bronchitis was present. The operation was through the abdomen to the outer side of the right rectus abdominis. The kidney was first tapped and twenty pints of pus removed. The kidney was enucleated with difficulty, and the cut ureter attached to the outer edge of the wound. After all the sutures were fastened a sponge was missing; some were then removed, and the sponge found in the bottom of the capsule, causing the operation to last three hours. The kidney weighed 4 lbs. 7 oz., consisting of two large chambers with a round opening between them. The cause of all the mischief was a small umbrella-shaped stone, its front being firmly wedged into the mouth of the ureter. There were no complications; the wound healed slowly, and two months later she was strong and well.

Mr. Thornton, at a meeting of the Royal Medical and Chirurgical Society, also reported a case of a woman, æt. 37, who suffered from a fluctuant tumor of considerable size in the right side of the abdomen, with a red, tender and pointing swelling in the right loin, which was freely incised, discharging fluid with an immense quantity of cholesterine, was drained and treated antiseptically, healing in about six weeks. Two months later the wound opened and again discharged, healing slowly; this accompanied an attack of gout in both feet. Two years later she was operated on by Mr. Thornton for right ovarian tumor, which was removed. While the abdomen was open, he examined the kidneys and ureters. The right kidney was large and sacculated, and its ureter was much enlarged, especially at the pelvis rim. The left kidney and ureter appeared quite normal. The recovery after ovariotomy was rapid, but in six weeks the swelling on the right returned and discharged as before. Six weeks later there was a similar discharge from the left iliac region. Fifteen months later the wound in the right side again opened, and discharge went on for fourteen months without apparently affecting her health at all. Two months had elapsed since its last closure, and she is in excellent health.

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Cure of Abscesses About the Neck Without Cicatrix or Deformity—F. J. B. Quinlan, M.D., M.R.I.A., of Dublin, recommends (*London Lancet*) the following procedure: A thin curved needle about three inches in length is threaded with fine silver wire, mounted on a handle, and passed deeply into the swelling from above downwards so as to admit of drainage. The wire is thus got through the abscess and the ends are tied together outside the skin. Spirit lotion is applied on lint and changed three times a day. The purulent discharge gradually drains away and is succeeded by a watery one. When the edges of the little wounds begin to pucker in, the wire is removed and a compress applied over the site of the abscess and between the openings. These then close up leaving two little red cicatrices which subsequently become white.

Microscopy.

Note on a Species of Granular Cells (Mastzellen of Ehrlich) and its Relations to Syphilis, Lupus, Rhino-Scleroma and Leprosy.*

BY DR. VICTOR BATES.

Whilst studying the reaction of cells with aniline colors, Ehrlich found a species of cells which are only colored by certain aniline dyes. These cells are formed in a normal state, especially about the vessels and in general about the canals of regions in which an exaggerated nutrition may be supposed to exist. In certain diseases where conditions analogous to exaggerated nutrition exist, these cells are found in larger numbers. On this account Ehrlich called them "mastzellen." (It is not so in the author's opinion, as he believes that these cells are concerned in the development of the vessels.)

These cells have a singular appearance: they are larger (sometimes twice) than the migratory cells, but occur in about the same manner as the latter, more especially around vessels; sometimes also at some distance from them, between the fibres of the connective tissue, for example in the thickness of the derma. They also penetrate into the papillæ. Their form varies; they are rounded or long, sometimes they present prolongations forming figures resembling those of pigmented cells, in the meninges, for example. It was particularly with methyl violet 1B and gentian with which they were colored. It is difficult to demonstrate them with any of the other colors employed in histology. The nuclei of the cells color very feebly, but the protoplasm assumes a much deeper tinge. It is made up of a large number of rounded or lengthened granules of equal size, lying close to each other. A peculiarity found in these cells is the fact that the cells are not well defined; these granules which form the body of the cell do not show well defined boundaries. Outside of the cells the little round granules are found, well colored by the violet. In the same manner, where the granular cell is not present, a mass of these round granules is found, indicating the site primarily occupied by the cell.

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* Progres Medical, June 9, 1883.

The best method of coloring these cells is by treating the tissues with 1 B violet (Basel manufacture) in a concentrated aqueous solution for twenty-four hours; the water is then removed by means of alcohol, essence of cloves, and it is preserved in Canada balsam. By this method, the granules of the granular cells are colored a deep reddish violet, whereas the other tissues become a bluish violet. The granules have a diameter of 0.2 about, are not shining and resist somewhat the action of acids or alkalies. Having become familiar with these cells, which are found in normal tissues, the author was always struck by the resemblance of the granules to microbia. Then, when reading the description of round bodies found in the cells—different infectious diseases and regarded as micro-organisms generating these diseases, he has asked himself if these pretended microbia were not simply the protoplasm granules of granular cells; it is more particularly in syphilis, lupus, rhino-scleremas and even in leprosy that we find analogous microbia described.

Birch Hirschfeld has described a microbion in syphilis. He finds it in all syphilitic products, in the granulations and about the embryonal syphilitic tissues, and in certain cells. These cells are filled with microbia, according to his description, that is to say with very short rods, "micro-cocciform," so much so that the individuals can not be distinguished; but sometimes they are also found outside of the cells. Whilst studying in M. Cornil's laboratory a large number of specimens of the recent products of syphilis in a great measure obtained from the living subject and very fresh, the author never found microbia, but almost always granular cells with the granules colored, and arranged in the same manner as the microbia of Birch Hirschfeld. There is no doubt that this author made a mistake in his interpretation. The author believes syphilis to be caused by a parasite, but a method to demonstrate it has not yet been found.

Gleanings.

TREATMENT OF FRACTURES OF THE LONG BONES.—Dr. James R. Taylor, of New York, read a paper on the above subject before the American Medical Association, June 6th, 1883, in which he briefly presented some methods of diagnosis and treatment from the extensive surgical *clientele* of the out-door department of Bellevue Hospital. He first spoke of fracture of the thigh bone, which he treats with a saddle made to fit into the perineum, whereby he secures the most perfect comfort possible by any apparatus used for the purpose of counter-extension. This neatly devised little saddle is held in position by a strap, running to the head-board on each side, thus securing the patient in an immovable position. By fastening strips of adhesive plaster, previously secured to the leg, to a screw arrangement in the foot of the bed, he can produce any desired degree of extension of the limbs by simply turning the screw at the foot of the bed; the chief advantage of the whole apparatus over all other instruments being the little saddle on which the patient sits, as it were, with comfort, he claims, rather than misery, as in most other methods. He announced himself as opposed to the old method of using stones and other suspensory weights to produce extension of the limbs, and then turned his attention to the treatment of fractured ribs. He brings the broken ends into place by raising the arms over the head, an original method by which he claims there is no trouble in adjustment. They are then held in place by a band of adhesive plaster around the body.

INFANTILE CONSTIPATION.—While we know this to be a very common and very troublesome condition to many physicians, yet we were hardly prepared for the numerous replies which a query on the subject in the *Lancet* has brought forth. Some of them we have already given; we now note another. Dr. J. R. Seymour, in the issue of July 21, says:

"Well boil some coarse meal, stirring occasionally until the mass is reduced to a jelly (which will take some hours), then strain through muslin, and to the liquid portion strained off, add sugar to sweeten it; again boil to dissolve the sugar, stirring well the whole time to prevent burning; when the sugar is all dissolved it is ready for use, and can be kept warm on the hob. I am now able to state that my little patient is no longer troubled with constipation, his bowels being perfectly regular and healthy. Moreover, he is now contented, cheerful, has good nights, and is getting quite plump. A small quantity of milk (preferably Swiss) may be added to the food if necessary. I have found it advantageous to alternately change the diet to one of pearl barley, which is made in the same manner as the oatmeal. The oatmeal seems to rather overheat the blood (as mothers say), and causes a rash at times like strophulus, which, as far as I have been able to judge at present, may be obviated by varying the diet as proposed. As to oatmeal being a cause of rachitis, all I can state is I have not noticed any signs of it at present. In the meantime I shall continue the meal, and for children whose stomachs will not tolerate milk in any form, I consider meal is *the* thing."—*Medical and Surgical Reporter.*

SUBMUCOUS INJECTIONS OF CHLOROFORM IN TOOTHACHE.—M. Guillott, in *Le Prog. Med.* has for six years met with good results in acute odontalgia, from the injection into the gingival sub-mucous tissue of chloroform, after the method proposed by Dop, of Toulouse. He fills a Pravaz syringe half-full of chloroform, inserts the needle deeply into the tissue until it scrapes the bone over the root of the aching tooth. He also makes use of a chloroform mouth-wash (5 or 6 drops to a glass of water) to ease the soreness after extraction. The patient keeping the water in his mouth, in the manner of a bath. As a gingival collutory the aromatic aqueous solution of chloroform (8 grammes to 1000 of distilled water, one dessert-spoonful to a glass of water) is a good solution of the kind.

NEW OVARIAN TROCAR.—Dr. Jos. H. Warren, of Boston, describes a new trocar, devised by himself, in the Vagina *Medical Monthly* of December, '82. Its novel features are, 1, a revolving point—the cutting edges being opposite and spiral: 2, a detachable handle—the detachment being effected as the rod is withdrawn by a mechanism similar to that in a pile driver; 3, packing just back of the point by means of which, as the point is drawn back, the fluid is started, and which, as the rod is detached, prevents the fluid passing through the tube, causing it to flow out through an opening at the side specially provided for that purpose. The improvement is novel and ingenious.

ASAFETIDA IN THE TREATMENT OF ABORTION.—In the *Journal de Medicine de Paris* of December 16, 1882, are collected the results obtained by several observers in the prevention of abortion and premature labor by asafetida. Dr. Laferla, acting upon the theory that the death of the fetus was owing to an asthenic condition of the uterus, administered the drug in a number of instances. In nearly ninety per cent. of the cases so treated, the patients (who had aborted from two to five times in former pregnancies) went on to full term. Drs. Giordano and Carxani announce equally favorable results, though the number of their cases was smaller. The latter prescribes the drug in pill form in doses of one and a half grain twice a day, gradually increased to twelve grains per diem. Dr. Gourgnes recommends the administration of asafetida, in emulsion with the yelk of an egg, by the rectum.—*Medical Record.*

Book Notices.

THE PATHOLOGY AND TREATMENT OF VENEREAL DISEASES. By Freeman J. Bumstead, M. D., LL. D., Late Professor of Venereal Diseases at the College of Physicians and Surgeons, New York, etc., and Robert W. Taylor, A. M., M. D., Professor of Venereal Diseases in the University of Vermont; Attending Surgeon to Charity Hospital, New York, etc. Fifth Edition, Revised and Rewritten, with many Additions by Dr. Taylor. With 139 Woodcuts and 13 Chromo-Lithographic Figures. 8vo. Pp. 906. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: R. Clarke & Co. Leather, Price, $5.75.

This great work upon venereal diseases has now reached a fifth edition. No work has ever been published upon the same subject that has attained to as high a standard as an authority as it has. Ricord, Vidal and Sigmund—the first two Frenchmen and the latter a German—and others, held rank as authorities in venereal affections, but the works of none of them were so generally quoted and esteemed as this one. Prof. Bumstead was a man of learning, had great experience, and possessed a logical mind. Thus endowed, he spared neither time nor labor on his book, bestowing upon it all his energies and knowledge.

It will be remembered that the fourth edition constituted almost a new work in consequence of a great part of the work having been rewritten, so much new knowledge having accumulated previous to its appearance. Prof. Bumstead himself expended much labor and time in the preparation of that edition, associating with him Dr. R. W. Taylor. It was his last work, for he had no sooner finished it than he died.

The fifth edition has been prepared by Dr. Taylor alone. He has revised the text when necessary, changing and modifying it, and making additions when required. Much new matter will be found relating to therapeutics, and in the chapter on the treatment of syphilis a new adjuvant is spoken of, which he believes he has the honor of now introducing to the profession. The subjects of the inoculation of animals with syphilis and the bacillus origin of the disease, which are at present attracting much attention, have been included in this edition, and a chapter on syphilis and marriage has been appended.

The work has been brought fully up to the present state of knowledge, and will undoubtedly continue to be the principal authority upon venereal diseases for a long time.

INSANITY CONSIDERED IN ITS MEDICO-LEGAL RELATIONS. By T. R. Buckham, A. M., M. D. 8vo. Pp. 265. Philadelphia: J. B. Lippincott & Co. Cincinnati: R. Clarke & Co. Price $2.00.

The author states that his object in preparing this work is to point out the pernicious uncertainty of verdicts in insanity trials, with the hope that by arousing attention to the magnitude of the evil, at least some of the more objectionable features of our medical jurisprudence may be removed. It has certainly been most disgraceful, oftentimes, the display which has been made in our courts of justice, when the sanity of a criminal or a testator has been called in question. Not unfrequently there has been witnessed members of the profession taking opposite sides, and directly contradicting one another. Very little do they, under the circumstances, have the appearance of votaries of science, bringing its truths to bear upon the case for the elucidation of important questions. Says Dr. Maudsley, "It is notorious that the acquittal or conviction of a prisoner, when insanity is alleged, *is a matter of chance.*"

Although every physician is liable to be called upon to testify in cases of alleged insanity, yet it is a fact, much to be regretted, that very few of them give any attention to the study of mental phenomena in health and disease. There is no study more interesting or more important, and as it is necessary for the proper discharge of most important responsibilities, which are likely to devolve upon any medical man, it should not be neglected.

Dr. Buckham seems to give a concise and graphic description of mental operations, showing how they are affected by disease. He has given insanity much attention, and is competent to give instruction in regard to it. We hope his work, which is small and inexpensive, may be sought for and read. If it should be, we feel sure that there would not be so often the disgraceful scenes in courts of physicians acting as partisans, instead of being the expounders of science for the success of truth and justice.

A PRACTICAL TREATISE ON MATERIA MEDICA AND THERAPEUTICS. By Roberts Bartholow, M. A., M. D., LL. D., Professor of Materia Medica and General Therapeutics in Jefferson Medical College, etc. Fifth Edition, Revised and Enlarged. 8vo. Pp. 738. New York: D. Appleton & Co. Cincinnati: R. Clarke & Co. Cloth, Price $5.00.

Since the publication of this work in 1876, it has reached a fifth edition. This fact certainly is conclusive evidence that it has been most highly appreciated by the profession. A work must have most undoubted merits in order to be thus in demand. In these days, when so many medical men aspire to authorship, a medical book is regarded as having met with success if a second edition should be called for before it becomes supplanted by a competitor.

The author claims for his work a new classification, and sets forth a *Schema* as follows:

PART I.—*Modes in which Medicines are introduced into the Organism.*

PART. II.—*The Action and Uses of Remedial Agents.*

Those used to promote constructive metamorphosis.
Those used to promote destructive metamorphosis.
Those used to prevent septic decomposition.
Those used to modify the functions of the nervous system.
Those used to cause some evacuation from the body.

PART III.—*Topical Remedies.*

The present fifth edition has been adapted to the sixth decennial revision of the "United States Pharmacopeia." Besides, the author has given to the whole work a careful revision, incorporating the more recent improvements in the science and art of therapeutics. Many additions have been made and parts rewritten. About one hundred pages have been added to the work.

The revision and improvements will make the work more than ever acceptable.

1. Elements of Surgical Pathology. By Augustus J. Pepper, M. S., M. B. Lond, F. R. C. S. Eng. Fellow of the University College, London, etc. Illustrated with 81 Engravings. 16mo. Pp. 503. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: R. Clarke & Co. Price, $2.00.
2. Surgical Applied Anatomy. By Frederick Treves, F. R. C. S., Assistant Surgeon to and Senior Demonstrator of Anatomy at the London Hospital, etc. Illustrated with 61 Engravings. 16mo. Pp. 531. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: R. Clarke & Co. Price, $2.00.

The two volumes, whose titles we give above, belong to the series of "Manuals for Students of Medicine," which are now being published by Messrs. Lea's Son & Co. This series has been projected, as we stated last month, to meet the growing demand for concise and authoritative manuals on the various branches of medical science in a cheap and portable form. It is also designed, as we have stated, that the series shall also afford practitioners works for speedy reference.

The work on *Surgical Pathology* is certainly a "jewel" of a book, not only for students, but as a work of reference for practitioners. Though so small that it can easily be carried in the coat pocket, from which it can be easily withdrawn for reference, yet it is quite full and explicit in its details. The second course student who is preparing for final examination will keep it about him all the time, so that he may conveniently refresh his memory. The author has been a teacher for many years, and he has embodied in it the results of his conclusions and observations. He has endeavored to render in a practical form the knowledge conveyed, and to give an explanation of the causes and methods of pathological processes.

The work on *Surgical Applied Anatomy* is worthy of the commendation bestowed upon the other. It is about the same size, and will no doubt be popular with second course students preparing for final examination. In fact, on examination of the work, it occurs to one that it presents really all that one needs in the way of "applied surgical anatomy." The various regions of the body are quite fully described, and then are taken up the structures contained in them, describing them, stating their importance, and mentioning the lesions to which they are liable. For instance, in speaking of the external meatus of the ear, we learn that the skin may become inflamed, producing an extensive muco-purulent discharge—otitis externa. Polypi are apt to grow from the soft parts of the canal, and exostoses from the bony wall. Foreign bodies are frequently lodged in the meatus, and often involve great difficulties in their extraction. In many cases more damage is done by the surgeon than by the intruding substance. Mason reports three cases where a piece of slate pencil, a cherry stone, and a piece of cedar-wood were lodged in the canal for respectively forty years, sixty years and thirty years.

1. THE PHYSICIAN'S VISITING LIST (LINDSAY & BLAKISTON) FOR 1884. Thirty-third year of its Publication. Philadelphia: P. Blakiston, Son & Co. Cincinnati: R. Clarke & Co. Price, for 25 patients a week, $1.00.
2. THE PHYSICIAN'S DAILY POCKET RECORD, COMPRISING A VISITING LIST, MANY USEFUL MEMORANDA, ETC. By S. W. Butler, M. D. Eighteenth year. New and thorough Revised Stereotype Edition, with Metrical Posological Table, etc. Edited by D. G. Brinton, M. D. Philadelphia: Medical and Surgical Reporter.

The reception of the above Visiting Lists for 1884 reminds us that the year 1883 will soon be numbered with the past, and that it is time to be getting for a new year.

No physician, whether practicing in the city or country, should be without a Visiting List. Besides its great convenience for ordinary daily memoranda and for noting deaths, obstetrical attendance, vaccination engagements, addresses of patients, nurses, etc., it affords a daily record of all visits made, good and bad, paying and non-paying, of cash received and payed out, and other items too numerous to mention. Made to be carried in the pocket, it can be consulted at any time or an entry made. Its use, besides the convenience, will result in saving many dollars to any one who has any practice at all.

The Visiting List of Lindsay & Blakiston has been before the profession for many years, and has always been held in esteem. It seems to us that it would be a difficult matter to improve upon it. The copy before us is made to keep records of visits made to twenty-five patients a week. Besides, there are blank leaves for daily memoranda of miscellaneous subjects, for noting deaths, obstetric business, addresses, vaccinations, cash receipts and other things. There are also dose tables, poisons and antidotes, and description of Sylvester's method for artificial respiration, a calendar for 1884 and part of 1885.

The Pocket Record of Dr. Butler is somewhat larger. It can be commenced with at any time, as the place for the month is left blank to be filled in by the person using it. It is ruled for keeping the same records as we mentioned in describing the other. There is a perpetual calendar; also a posological table, treatment of emergencies, a table for exhibiting the normal and abnormal qualities of urine, their significance and tests, doses and properties of new remedies.

It is certainly a very excellent Pocket Record or Visiting List. While many would prefer Lindsay's & Blakiston's, many would prefer this. They are both well adapted for their purpose.

EPITOME OF SKIN DISEASES, WITH FORMULÆ, FOR STUDENTS AND PRACTITIONERS. By the Late Tilbury Fox, M. D., F. R. C. P. Third American Edition, Revised and with Additions. By T. Colcott Fox, B. A. (Cantab), M. B. (Lond.), Physician for Diseases of the Skin to Westminster Hospital, etc. 8vo. Pp. 240. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: R. Clarke & Co. Price, cloth, $1.25.

The work of Tilbury Fox has been exceedingly popular both in this country and England. Though not a long time before the profession of the United States, yet it has reached a third edition. Notwithstanding that it is of small size, yet it describes very fully and accurately the diseases of the skin. The treatment presented and advised is such as has been commended by the profession.

There are no class of diseases which are treated by physicians so unsatisfactorily as diseases of the skin. This is the result of the ignorance of physicians in regard to them. Very few study them at all, merely prescribing some lotion or salve when consulted, oftentimes making the same prescription in all cases. If those who thus carelessly treat affections of the skin, would secure the little work of Dr. Fox and carefully study it, the result would be greatly to their credit and to the benefit of their patients. They would then be able to prescribe intelligently, and more certainly do their patients good.

We can understand how such a voluminous work as Wilson on Skin Diseases would tend to repel the ordinary practitioner from its study, but the little work of Dr. Fox, written in a pleasing style, with concise, correct descriptions tends to invite study.

Editorial.

FUNCTIONS OF A MEDICAL STAFF OF AN INSANE HOSPITAL. —This is the title of a paper read before *The National Association for the Protection of the Insane and the Prevention of Insanity*, by Professor Traill Green, M. D., of Easton, Pa., and published in the *The American Psychological Journal* for October.

Prof. Green, in his paper, most forcibly exhibits the absurdity of burthening physicians of the lunatic asylums with the whole cares of the institution. According to the present custom, as he says, "the duties imposed upon the Superintendent make it necessary that he be so good a judge of dry goods as to be qualified to conduct the business of a dry goods store. He must know the properties of good vegetables and good meat, and be so well acquainted with groceries, as to price and quality, that he can not be imposed upon. And this is a specialist! A man of all work, which no one else in as important a position is expected to be. The public would not tolerate a condition of things like this in any practitioner of medicine. Sir Charles Bell, it is said, lost popularity after he published his work on the hand as a Bridgewater treatise. The private practitioner could not devote himself to his work if called to select the vegetables, meat, groceries and dry goods for his patients, even if only to gather them together in a common storehouse. It is not marvelous if men feel that these officers have too much work assigned to them, and it is not surprising if difficulties occur between them and the trustees of the hospital. His office, certainly, is to attend to one thing, as a physician of the insane, and how great is the work which is committed to him! He must carry in his mind the history of every case which comes under treatment—the history of the family to which the patient belongs must be familiar to him; he must know the patient's condition daily, and the character of his disease."

It is the custom, we believe, throughout this country, to give the whole management of a lunatic asylum to the Superintendent. He is the head of every department and the responsible person. He must attend to the purchasing of the clothing, the provisions—flour, meat, potatoes, medicines, etc. It devolves upon him to hire the subordinates in the different departments. In brief, he alone is the responsible manager and executive officer, as well as physician. The primary object in his appointment is, that he should bring to bear his scientific knowledge for the restoration of the insane to their right minds. He is supposed to understand mental phenomena in health and disease; to be acquainted with the physiology and pathology of the brain and the nervous system, as well as general physiology and pathology; to be familiar with the laws of heredity in the transmission of mental disorders and of traits of character, and the modifying influences of certain disease upon the mind. Besides this knowledge it is assumed he has such therapeutic knowledge, and of the art of employing medicines in the treatment of disease that he is qualified to make use of the proper remedies for restoring the insane to their right minds.

When it is called to the attention the duties that devolve upon a Superintendent of an insane hospital, and it is brought to mind how universally men fail in accomplishing anything who attempt to pursue more than a single object, it must be conceded that a physician, who is fully qualified to fill the office, as it is understood at present, of a Superintendent of a lunatic asylum, would be a most wonderful man indeed. It is generally supposed in business that a merchant will have all the powers of his mind fully taxed to continue, from day to day, qualified to act as an expert in the qualities and prices of dry goods. Such a merchant would not entertain the thought for a moment that he could give attention to groceries, and, still less, to the products of the farm, keeping posted in the prices of butter and eggs, etc. But the Superintendent of an asylum for the insane must not only be an expert in judging the quality of all kinds of dry goods, boots and shoes, groceries, farm products, but should be an educated physician, and a specialist, of a high order in mental affections.

Prof. Green, in his highly interesting paper, gives a number of examples of the failure of men endeavoring to carry on pursuits for which they were not qualified. We will quote two or three of them. He says:

"In the medical profession it is not uncommon to see men who, in the earlier years of their professional life, imagine that some other pursuit would be more remunerative and more agreeable. We have met with instances of this kind, and we have seen bankruptcy in manufacturing business—business upon which these physicians entered with the brightest prospects of success. The animation of a good single purpose was soon lost, as there was not that knowledge of the business upon which it could rest. We knew a farmer to leave his farm of a hundred acres, to live in town and pursue a mercantile business in a house which had an open space on one side of it of a few square yards. Before twelve months had passed away we were called to prescribe for him in melancholia, which well-nigh sent him to an insane asylum. Escape from his new business saved his life and restored his health. He is living on the old farm again, but not as the owner of it. We knew a wealthy mechanic whose life was joyful in the hope that he might eventually retire and possess a farm, and in a quiet country home spend his last years. His desire to possess a farm was realized. He purchased one of the best farms in the interior of the State, but he lost his health and the bright hope of his earlier life. He sold his farm and returned to his first occupation. He told me not long afterwards that he had no desire, for himself, to own a piece of ground larger than a potato patch. His health returned and he lived many years a wiser and a happier man. He had not learned the poet's words, '*non omnia possumus omnes*,' and 'But this one thing I do,' of St. Paul. These were not thoughts that possessed the minds of these persons. They had not the training nor the knowledge required. They had not the strong purpose to sustain them, and they were glad to return to their former pursuits. Physicians, merchants, farmers, mechanics, are under the same law; as one fails, so do the others, in pursuits not strictly their own. The law of success governs all, for it requires constant, entire devotion to one work. Early education in the occupation or study, and an earnest purpose in its pursuits, prepare a man to press onward in it, and bring success and happiness. One object of this society is to protect the insane. It will accomplish this by coming to the relief of those who treat them. Those who do this are men whom we can trust, and the society can not do better than to influence the trustees of the institutions until the medical staff of every one of them is relieved from all work excepting that which is professional."

As our insane asylums are at present organized, the purpose for which they were created is necessarily to a considerable extent defeated. A physician who has made insanity a special study, on taking charge of one of them, can do but little, or nothing at all, in the way of applying his knowledge to the restoration of the reasons of the poor unfortunates who are consigned to his care. Being alone the responsible person of the institution, and made the head of every department, and accountable for the efficient management of each one, instead of being able to give attention to the treatment of the insane, his whole time is occupied with the business affairs of the asylum. Many of the insane hospitals have six and eight hundred patients. What can a Superintendent, who is responsible for the expenses of such an institution, and who is compelled to attend to all purchases, to hire subordinates, etc., to see that everything runs along smoothly and that every one under him discharges his duties, do in the way of rendering professional services to all these hundreds of patients who are sent there to be treated by him? Certainly nothing at all. They must be left to be cured, if cured at all, by the *vis medicatrix naturæ*. Fortunately for the insane there is such a healing power, which is especially called into activity when recent insane persons have been removed from home, placed under new circumstances, have different surroundings, and feel the awe of the firm, but nevertheless kind, discipline of the institution.

The Superintendent, as he is termed, in order to give those poor beings, whose minds have become dethroned, who have been sent to him to be treated by him, the professional attention that is due to them, should be relieved of all cares of the management of the house. He should be situated so that his whole time could be spent in observing and studying the mental diseases of the patients, and there should be nothing to distract his attention. As mental ailments are his specialty, he should not even be under the necessity of treating any of the ordinary affections that may take place during the residence of the patients in the institution. They should be attended to by a general practitioner. Cerebral pathology, and the physiology of the mind as normal psychological action is called, are making advances all the time. We are certainly far better acquainted with mental phenomena, normal and abnormal, than was the profession fifty years ago. Should not a superintendent keep posted in the progress of his specialty? But how can he if he must be studying the markets, and looking out for bargains in purchasing produce and dry goods?

In conclusion, we will say that we think that Prof. Green's paper is calculated to do good. Superintendents of asylums will undoubtedly feel grateful to him for so ably advocating their cause, for certainly every conscientious one feels that his efficiency, in what are his primary duties, is very greatly limited under the present circumstances.

THE MENTAL STATUS OF GUITEAU.—Dr. James H. McBride, Superintendent of the Hospital for the Insane, at Milwaukee, Wis., has quite a lengthy and interesting article in the October number of the *Alienist and Neurologist* on the mental status of Guiteau, who assassinated President Garfield. He takes the position that Guiteau was insane, and argues that point with a great deal of skill. He says: "After as careful an examination as I could give to the mental condition of Guiteau, I believe that he was an insane man at the time he shot the President, and that he had been insane for many years. From my observation of him, it appeared to me, that the prominent mental characteristic of the man was that of *congenital defect of organization*, and to this had been added mental degeneracy."

Our readers will no doubt remember that an autopsy having been made of Guiteau, a microscopic examination of the brain showed that the nerve tissue was seriously diseased, the blood-vessels were diffusely and chronically degenerated, and other evidences of cerebral degeneration were discovered. Now, if disease of the brain is evidence of insanity, it was certainly present in his case. It is acknowledged, however, we know, that there may be serious lesion of the brain, and yet the individual continue sane. A tumor, of the size of an orange, has been found, after death, existing in a man's brain, who, during life, had not manifested the slightest evidence of the fact. Abscess of the brain and softening of a limited portion has also existed and the mind of the individual has not been the slightest affected. But it is not difficult to understand, in such instances, how the sanity of the individual has remained unaffected by the disease. Not all portions of the brain contribute to mental processes, and such parts, consequently, may be the seat of disease and the mind not be affected, especially if the portions in which the intellectual organs have their seat are not impinged upon by pressure. What parts of the cerebrum are concerned in the operation of the mind we do not as yet know. Our knowledge of the physiology of the brain will not warrant us in mapping it out, like the phrenologists have, so as to locate the various intellectual functions; but yet we know that there are parts in which mental processes have their seat, and that there are other portions which do not subserve any psychological operations, and which may be diseased or entirely destroyed without any affection of the mind. But though it be conceded that serious brain disease may exist without producing insanity, yet it can not be admitted that *diffuse* chronic disease of the brain can exist and the individual continue *compos mentis*.

Furthermore, we agree with Dr. McBride in his statement that, without existing disease, a person may be properly regarded insane in consequence of a bad mental organization proceeding from an imperfectly developed brain. In the idiot and imbecile there is no cerebral disease, but a dwarfed condition of the brain. But there are those who are not idiotic or imbecile, but yet reason badly, their minds oftentimes engaged with illusory notions that are constantly changing, and they are the prey of impulses. Sometimes such are easily influenced, and, like citadels without walls, are captured by the last enemy. But, now and then, we meet with those who will exhibit great stubborness of will, notwithstanding they exhibit the feeblest reasoning powers, and are incapable of appreciating the plainest inconsistencies. Dr. McBride illustrates our idea in this way: "One man may entertain a false belief because his brain is in a morbid state; he arrives at his conclusions not from choice and correct reasoning, but because of the action of a diseased brain. Another may entertain a precisely similar belief, because there are wanting in his brain certain parts essential to proper reasoning, or because of a bad arrangement of existing parts. He, therefore, arrives at his conclusion not from choice, nor because of a morbid process, but because of the chance suggestions, the wayward and imperfect logic of a defective mind. If, in the first instance, there is insanity in consequence of *disease*, why is there not insanity in the second case resulting from *bad organization*. A human brain may, in fact, be so badly organized, that in its evolution there is not only defect of mind, but *disordered* mental action; so badly organized, indeed, that deranged action may be its only form of activity."

Following upon these propositions, which we think can not be controverted, Dr. McBride thus describes the conduct of Guiteau: "In a time of political excitement, he conceives the idea that he will do a patriotic act by killing the ruler of a great nation. He reasons so badly that he believes that in place of being shut up as a lunatic, he will be considered the great man which he conceives himself to be; that he will be hailed as a deliverer, and rewarded for his act. So he kills the President, and he is so unreasonable as to suppose that if he can only conceal himself for a few days, the public, which without understanding his patriotic motives may at first feel disposed to punish him, will after having had time for reflection, conclude that his act was a meritorious one. Now all this reasoning, if such it can be called, is the work of a disordered mind, and his thoughts run in this channel because the only existence of which his poor, dwarfed nature is capable, forces his thoughts so to run."

Again, it will be remembered that, during the presidential campaign, he delivered a speech in favor of the election of Garfield, which he managed, in some manner, to get printed. The speech was delivered to a few colored men whom he had gotten together, in some manner, but could not hold them until he finished. In consequence of it, although it was but a batch of nonsense, wandering, empty and incoherent, he imagined himself a great political orator, and asked for assignments to deliver public addresses on the political questions of the day during the canvass of the election. He afterwards claimed, and no doubt sincerely believed, that this speech elected Garfield President of the United States. Soon after the election of Garfield, he ran after him one day on seeing him riding by, and gave him a copy of the speech. He was in doubt for some time what high office he should demand as a reward for his great speech. For a while he thought of asking for the position as minister to Austria, but finally settled upon the consulship to Paris. Every one, no doubt, remembers how he annoyed Mr. Blaine by his calls and his importunate demands for appointment to the office he wished. When this conduct of Guiteau is called to mind, it should be recollected that he had not a friend anywhere, was ignorant, penniless, ragged, bareheaded and barefooted, wandering about the streets of Washington. Notwithstanding he had to use all sorts of cunning to get into the commonest boarding-house for a day or two, and was always put out for non-payment of board, always failing at anything like employment, and professing to be a lawyer but never trusted with a case, and was constantly treated with contempt on every hand, yet he was filled with the most overweening vanity and thought himself greatly admired. A common liar, dishonest in every transaction, impure in conduct, given to gross immoralities, he saw no inconsistency in his practices to the loudest professions of piety. In fact, he wrote a religious work, made up, it is said, of incoherent expressions, and, in consequence, spoke of himself and signed himself, Theologian.

Our space will not permit us, at this time, to consider at further length the paper of Dr. McBride on the Mental Status of Guiteau. If opportunity is afforded, we will resume the subject soon again. In conclusion we will quote a paragraph from Dr. M.'s paper:

"If nature in a certain case organizes not only a bad brain, but other parts of the system, which determine the preparation and assimilation of nutritive material, so that the nutrition of the brain fails to be what it ought—so that the individual thinks imperfectly and incoherently—surely the individual can not be considered responsible for his conduct which results from his defective organization. While, therefore, it may be allowable, in the two cases mentioned, to make a distinction in names and to say that one is insane and the other is an imbecile or something else, so far as their responsibility is concerned there would surely be no difference. The true test in each case should be the reasonableness or the unreasonableness of the belief considered in connection with the condition and life history of the individual. One entertains the belief in consequence of disease and in the presence of his belief he is helpless; the other entertains the belief in consequence of malorganization, and so, in the presence of his belief, he too is helpless."

LOCOMOTOR ATAXIA.—We are indebted to the author, Dr. Philip Zenner, of Cincinnati, for a pamphlet containing three lecturers by him on this disease, delivered before the *Cincinnati Medical Society*. Dr. Z. describes LOCOMOTOR ATAXIA "as clinically represented by characteristic lightning-like pains, sense of numbness or formication in the legs, peculiar perversion of tactile sensation in the soles of the feet, so that the ground does not feel natural, anesthesia, ocular paralysis, disturbances of the genital functions, of the bladder, rectum and other viscera, but most prominently a loss of muscular co-ordination, an ataxic gait. As a pathological substratum for these symptoms, we find degenerative changes chiefly in the posterior portions of the cord."

As regard the diagnostic value of the pains, he states that their sudden onset, their paroxysmal occurrence, etc., usually enable us to recognize them easily. Sometimes they are so intense as to make existence a torture. Sometimes, however, they are very mild, so much so as to attract but little attention. Changes in the weather and mental emotions tend to increase them.

Among the anomalies of sensation is the "girdle sensation" —a sense of constriction, or of painful pressure about the waist. But a very noticeable parasthesia is a peculiar perversion of the tactile sensation of the soles, so that the ground or floor feels as if it was yielding. Not long ago we met a gentleman suffering from the disease who could maintain an upright position and walk tolerably well so long as he kept his eyes upon his feet, but would fall down the moment he took his eyes away. He stated that he did not feel the floor at all with his feet, and so, when attempting to walk, he did not know when a foot had reached *terra firma*, when, after lifting it up to take a step, he undertook to put it down.

Dr. Z. mentions a case reported by Erb in which the disease seems to have been cured. Eight years afterwards, the patient dying from the effects of poisoning, there was discovered, on autopsy, degenerative changes in Burdach's columns of the spinal cord characteristic of this disease. Here, as Dr. Z. says, we must attribute the improvement or cure to vicarious functions, certain nerve fibres in the cord assuming the functions of those which had been destroyed.

In this sense, then, as he states, we may speak of the curability of the disease—the functions of destroyed portions of the cord are assumed by other nerve fibres, and, therefore, the symptoms disappear. When the symptoms have been caused by transient conditions, as hyperemia, of course they will disappear with the disappearance of those conditions. Most undoubtedly, organic lesions having brought about destruction of any portions of the cord, the parts destroyed can not be reproduced. In such cases, a permanent subsidence of the symptoms must be accounted for on the ground that certain nerve fibres of the cord have assumed the functions of those which had been destroyed.

Vulpian, Fournier, Erb and others have suggested the probability that locomotor ataxia is usually of syphilitic origin. Some of them state that they have been able to trace a connection with syphilis in a very large number of cases. Dr. Zenner considers that its syphilitic origin has neither been proved or disproved. While we have no doubt that it oftentimes has been brought about by syphilis, yet we believe that it often attacks individuals in whom there is not a taint of syphilis. We admit that the pathology of the disease, so far as we understand it, tends to suggest syphilis as the cause.

HISTORICAL NOTES ON SYPHILIS.—Dr. R. L. Macdonnell, of Montreal, furnishes some curious facts in regard to syphilis in the *Phil. Med. News*. He states that it is generally supposed that syphilis first made its appearance in Europe in 1494. Guaiacum and mercury were employed in its cure. The former was recommended as a specific by Glanfield. The Chevalier Ulric de Hutton, a German poet and man of letters, spoke of it in high terms in 1533 as a specific in an essay that he wrote on the *Lues Venera*, and yet he died of it. Many of the most eminent physicians, for a long time, believed in the specific properties of Guaiacum. Among them was Nicolos Massa, who was decorated with the title of Archiater by four popes, and that of consulting physician by Charles V., Francis I. and Henry VIII., of England.

The fashion, however, afterwhile became changed, and all practitioners settled upon mercury, which has maintained its reputation ever since, and always will. It is hardly among the probabilities that a remedy will ever be found so reliable and efficient in syphilis as mercury. Berenger De Carpi, Dr. Macdonnell says, the anatomist, was the first to recognize the value of mercury. It was used by him in the way of inunction. He kept secret the remedy he used; and his success in treatment, over others, brought him an immense fortune. When invited to practice at the Court of Spain he returned a very insolent answer to the King, and treated a pope in the same contemptuous manner.

Inunction was practiced many years before the internal administration of mercury was considered safe. Fumigation was also much in vague. A physician to the Emperor, Charles V., was the first to strongly advocate fumigation. He regarded it an admirable procedure in all inveterate cases of syphilis of a robust habit of body, but advised against it in weak, hectic patients, or such as were subject to cough, asthma or dropsy.

The first treatise on syphilis written in English was by Clowes, entitled "A Brief and Necessary Treatise Touching the Cure of the Disease now usually called the Lues Venera." This work was first printed in 1585; Clowes was a surgeon of St. Bartholomew's and of Christ's Hospital.

In the days of good Queen Bess, syphilis seems to have prevailed to a terrible extent. As Dr. Macdonnell says, "those were the days when syphilis was indeed syphilis." It was said to be a common thing for ministers of the gospel to have it. As it was considered to be contagious, a minister could have the disease without incurring suspicion of immorality. It was also thought to be readily contracted from privy seats, and from the bed clothes used by parties having the disorder. *High-toned moral* persons, consequently, had but little difficulty in explaining how they had come by the disease. We are not quoting now from Dr. M. He, however, mentions that the enemies of Cardinal Wolsey, in 1539, accused him of having syphilis. The enemies, too, of both Calvin and Luther, charged them with being eaten up with pox. We, not long ago, came across a Life of Calvin, in the Public Library of Cincinnati, in which the charge that he died from the effects of syphilis was made and insisted upon. Of course, no one now gives the charge any credence.

According to Dr. Macdonnell, it was the commonest thing for a person to be without a nose as the result of pox; "so much so," he says, "that the possession of a nose was a warranty of a high moral character, and the noseless became an important element in the community." Later on, in 1761, was published, he states, an essay entitled "A Plan for the Extirpation of the Venereal Disease." The author proposed that all the inhabitants of the world should simultaneously be mercurialized. To defray the cost of this large undertaking, a tax of one guinea on noses was to be levied; for, he says, I hope that there are at least a fourth of the inhabitants of the island that have this ornamental feature actually remaining."

It is stated that the business of repairing damages to these facial appendages was a trade in itself. Families took it up, and the art descended from father to son. In 1442, a family named Branca, in Sicily, was specially gifted in this method of gaining a livelihood. They used skin-flaps from the arm. In the sixteenth century, a family named Vianco, in Calabria, followed the same profession. The operation of rhinoplasty, performed by transferring a flap from the forehead, originated in India, among the native operators, and was brought to the notice of European surgeons in 1794.

Syphilis used to be known by the name of the Malady of France; and by that name it occurs frequently in Shakespeare, whom every one knows had the most correct knowlepge of men of any person living. Not only did he know intimately the human heart, but every disease he undertook to describe he described with an accuracy that did not permit of criticism. It is acknowledged that his representation of an insane person is accurate in the minutest detail, and is so in accord with morbid nature that the most accomplished expert in insanity could not excel it. Dr. Macdonnell makes a quotation from Timon of Athens (Act. IV., Scene III.) to show how remarkably familiar Shakespeare was with the secondary and tertiary symptoms of syphilis. We will quote the passage:

"Consumptions sow,
In *hollow bones of man:* strike their *sharp shins,*
And mar men's spurring. Crack *the lawyer*'s *voice,*
That he may never more false title plead,
Nor sound his quillets shrilly: *hoare* the flamen
That scolds against the quality of flesh,
And not believes himselt: *down with the nose,*
Down with it flat; take the bridge quite away
Of him, that his particular to foresee,
Smells from the general weal: make *curl'd pate ruffians bald,*
And let the unscarr'd braggart's of the war
Derive some pain from you: plague all;
That your activity may defeat and quell
The source of all erection."

DEATH OF DR. J. MARION SIMS.—Dr. J. Marion Sims died suddenly at his residence in New York City on the morning of Nov. 13. He had been enjoying good health, and the evening previous to his death had been called out to visit a lady patient.

It is believed that the cause of death was heart disease.

Dr. Sims was born in Lancaster District, S. C., January 25, 1813, so that at the time of his death he was in the seventy-first year of his age. He was graduated at the South Carolina College in 1832, and studied medicine at Charleston and at the Jefferson Medical College at Philadelphia. In 1836 he settled at Montgomery, Ala., and it was there he began to build up the reputation for daring and skillful surgery, which has since extended throughout the civilized world. In 1845 it was that he began the remarkable series of experiments in uterine surgery that soon became celebrated. In 1853 he was naturally attracted toward the metropolis, and practiced here continuously for eight years. During that time his efforts were successful in causing the establishment of a hospital for women. He went to Europe in 1861 and 1864, and finally took up his residence in the "American Colony" in Paris. In 1870, after a hard struggle he succeeded in organizing in Paris the Anglo-American Ambulance Corps, which has done such efficient service.

As a surgeon, the delicacy of his touch, the keenness of his perception and the bent of his mind, combined to make him especially fitted to treat the diseases of women. Throughout his life he kept enlarging the list of possible operations, so that his labors have rendered it possible for many women to benefit with comparatively little risk from operations which were formerly considered altogether impossible, or so hazardous as to be practically out of the question. His substitution of silver wire sutures for those made of silk was an important step forward, and one which has been universally adopted. His clinical notes, published in 1866, is a standard work, and has been translated into French and German.

On the 21st of December, 1836, he married Eliza Theresa, daughter of Dr. Bartlett Jones, of Lancaster, S. C. He leaves four daughters and two sons. One of his daughters is the wife of Dr. Thomas T. Pratt, formerly of Alabama, but now of Paris. His sons are Mr. W. Marion Sims and Dr. H. Marion Sims, of this city.

Fehling's Test Tablets.—We are indebted to Messrs. John Wyeth & Brothers, of Philadelphia, for a number of these tablets for the rapid and accurate estimation of sugar, in the urine of diabetic patients. Those in the habit of analyzing urine know that the usual methods, however much it has been endeavored to simplify them, are neither convenient nor rapid. Messrs. Wyeth & Bros., however, are now manufacturing, on a large scale, compressed chemical tablets, representing the solid constituents of the well-known test solution of Fehling, by the use of which, those underderstanding urinary analysis, may be enabled to rapidly and accurately determine the presence of sugar in any solution We have not yet made trial of them, being just only in receipt of a few, but we have heard them highly recommended for their reliability, and have no doubt they will be in great demand.

The Messrs. Wyeths also prepare Dover's powder and other medicines in compressed tablets. We have employed their tablets of Dover's powder, and we are sure, if so situated as to be under the necessity of dispensing our own medicines, we would largely, if not altogether, use the tablets of the Wyeths. Besides being exceedingly convenient to physician and patient, the former can be sure of the precise amount of the dose he prescribes.

* * *

American Student Lamps.—There will be found on examining the advertising pages an advertisement of the lamps, single and double, made by Post & Co., of Cincinnati, for which they claim the following advantages:

They burn more steadily and better than any other lamps that are made. A single wick has been known to last for two years. The device for raising and lowering the wick, as shown by the hand in the cut, is so delicate as to permit the minutest adjustment of the light.

As physicians appreciate and understand the importance of a soft and steady light, the claims of these lamps by the manufacturers are worthy of attention. At a future time we may make mention of the merits of the lamps from observation for the various purposes of the profession—microscopical, chemical, and a number of other operations, as well reading and writing.

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HOANG-NAU—ITS THERAPEUTIC INDICATIONS.

IN 1879, M. Lesserteur, a former missionary to Tonquin and director of the Seminary for foreign missions, published a monograph on Hoang-Nâu, a remedy employed in Tonquin against rabies, leprosy and other affections, with the object of calling the attention of investigators to this new remedial agent. In 1881 Dr. Barthelemy published in the "*Journal de Medec. de l'Ouest* and in the *Bulletin Gener. de Therap.*" simultaneously a very complete study of Hoang-Nau and the results obtained with it in the treatment of diverse affections of the nervous system, and in a case of varicose ulcer declared incurable. In 1883, the same author published in the *Bulletin Gener. de Therapeut.*, a new study of the subject, Hoang-Nau as a specific for rabies, supporting the same by a very interesting observation there related. In these studies our colleague divides into the three groups, the maladies, in which fresh investigation and experiments with this bark from Tonquin should be made: I. Diseases of the nervous. II. Poisoning by virus and venoms. III. Cutaneous affections, local and constitutional. Can not the first and second groups be united into one, and in the second would not the effect of Hoang-Nau be solely due to its action on the cerebro-spinal system? The strychnine and brucine, which form constituents of the bark, are well known excitants of the nervous system; and on the other hand, the grave accidents due to the absorption of virus and venoms, disclose a profound modification of this apparatus. It is not long since M. Pasteur sent a communication to the Academy of Medicine in his name, and that of his colleagues, Chamberland, Roux and Thinlier, in which the learned Professor seeks to demonstrate, in rather peremptory manner, that the cerebro-spinal system is the principal seat of elaboration of the virus of rabies. May it not be the same for venom of ophidian (snake) origin? However it may be, it can not be denied that so powerful a modificator of the nervous system as Hoang-Nau is indicated in poisoning by virus of rabies. This medication, common in Tonquin, where, according to forcing experimenters, death never results from the bites of mad dogs, merits a serious and earnest study, consecrated by new experiences. In four cases observed by Barthelemy, Viant-Grand-Morais and Albert Malherbe, Hoang-Nau was employed in the prodromic stage and the result was a most brilliant one, none of the symptoms or accidents of rabies having occurred. It can not be doubted that the unsuccess observed till now is solely due, either because the Hoang-Nau was employed too late and almost in extremis, or because the inherent fear, in the use of remedies new and insufficiently known as to its mode of action, does not permit of its use in sufficiently strong doses. It appears from the work of Dr. Barthelemy that the remedy must be administered in increasing doses, and as soon as possible in the period of incubation, and that we must not hesitate to give at once strong doses in cases of confirmed rabies.

One of the first results obtained is an improvement in the *morale* of the patiênt, a restoration of confidence and a banishment of the instinctive terror, very conceivable, which invades a person bitten by an animal capable of transmitting a virus (poisonous snakes, mad dogs, etc.). Another result of the use of Hoang-Nau is, that it makes it possible to diagnosticate to a certain point whether we have to deal with a confirmed case of rabies. From the observations till now made, it seems that the nervous phenomena resulting from the absorption of Hoang-Nau—trismus, jerking, stiffness and construction of the muscles—are slower in manifesting themselves in spite of strong doses, according as the poisoning by rabies is more profound, whilst, on the contrary, they appear very rapidly, even with feeble doses, in persons free from all rabid inoculation.

The cures obtained in cases of poisoning from the bites of the cobra-capella and the black viper lead us to believe that just as the virus of rabies, so also the ophidian venom is chiefly elaborated in the cerebro-spinal axis; but to prove this, which is as yet only a supposition, new researches are necessary.

Another group of diseases amenable, according to Dr. Barthelemy, to Hoang-Nau, are certain cutaneous affections both local and constitutional, syphilis excepted; the Tonquinoire bark seeming to have no appreciable influence over accidents due to this virus.

We will not speak of leprosy, so rare among us; but there is another affection of the skin terrible by its frequency and tenacity, almost as insupportable to the community as to the patient; we mean old eczema, against which we vainly exhaust a whole pharmacy. Our colleague has had the happy idea to experiment with Hoang-Nau in a case of eczema of the scrotum extending to the perineum and to the superior and external parts of the thigh, and he had the pleasure of seeing disappear in a few days a disease of 10 years' standing and rebellious to all treatment. This and other analogous facts reported by foreign experimenters are sufficient encouragement to stimulate us to a thorough study of the therapeutic properties of Hoang-Nau.

MORPHIOMANIA—AS REGARDS PREGNANCY AND THE LIFE OF THE FŒTUS.

No researches have as yet been made what effects the abuse of morphia would have on the development of the pregnancy and on the life of the fœtus. Dr. Fere reports to the Biological Society a case which is very interesting upon this point. A young woman, 22 years of age, who had been in the habit of using morphine excessively for the relief of a facial neuralgia, finding herself pregnant, desired to discontinue the morphia. For this purpose she consulted several physicians, who refused to treat her for fear that a suppression of the morphia would provoke an abortion. In fact, when I began to diminish the daily dose of morphia which the patient was in the habit of taking, uterine colic came on, which made me fear an abortion. Nevertheless, by taking certain precautions, these colics were allayed by small doses of opium or chloral, taken by mouth or in the form of clysters, and the patient was delivered at term. But at this period the daily dose which the patient had been taking (25 ctgrms.) could not be reduced more than one-half

(13 ctgrms.) During the eight days following the accouchement, the treatment was abandoned. Resumed afterward, I again observed that a lowering of the dose of morphine provoked colics, excited, no doubt, by contractions of the neck of the womb, for as soon as they came on the lochia were suppressed. Nevertheless no serious accidents supervened, and at the end of the month the morphine could be entirely suppressed—this for the mother. A fact which it is very important to note is this, that the child of which this woman was delivered, and which seemed perfectly well, remained mostly without being able to sleep, and presented even, during this time, a certain agitation. In view of this fact we may be allowed to presume that, if at the time of the accouchment the dose of morphine had not been notably diminished, much graver accidents would have been presented by the child. It is, therefore, indicated not to wait till the period of accouchment to treat the morphomania, taking, however, all necessary precautions to prevent abortion.

Naphthol—Its Medicinal Uses and Value.

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NAPHTHOL is one of the remedies of recent introduction, and of the two products of that name the β naphthol is the one which was first used by Prof. Kaposi as a substitute for the tar preparations in skin diseases. It was thought by him as the essential and curative ingredient of tar, while it was free from the objectionable features of the latter.

My attention was directed to this remedial agent by Dr. Justus Wolff, a chemist largely interested in the manufacture of coal tar products, who kindly furnished me a paper on the chemistry of this substance, along with some novel properties which he had observed in it. As this paper, however, is too long for reproduction here in its entirety, and besides is largely of chemical interest only, I will here give it briefly in abstract as far as will be necessary to acquaint us with the chemical character of its subject, as follows:

Naphthol is a derivative of naphthalene, a hydrocarbon found in large quantities in coal-tar, belonging to the so-called aromatic group. In the fractional distillation of coal-tar, various hydrocarbons are obtained at different degrees of heat. Thus at 80° C., benzol distills over; between 80° and 110° C., benzol and toluol mixed; at 111° C., toluol alone; from 111° to 136°, toluol and the different xylens mixed; from 136° C to 142° C., xylens only; then the cumenes, phenol and cresols; and at 218° C., naphthalene, which sublimes in colorless, transparent, brilliant, crystalline plates, possessed of a disagreeable pungent odor; the empyric formula of which is $C_{10}H_8$.

Naphthol is produced from this by a substitution of one of the hydrogens in naphthalene by one molecule of hydroxyl $= OH$.

According to the different positions of the hydrogen substituted in the naphthalene by the hydroxyl, two different naphthols are obtained, of which one is called α naphthol, and the other, the one we shall alone speak of hereafter, is the β naphthol of the formula $C_{10}H_7OH$.

The naphthols demonstrate the advantage of a knowledge of the relative and positive positions of substitution in order to understand the cause and constitution of the different offsprings from simple or compound constitutions.

The method of producing naphthol is like the general process employed in effecting hydroxyl substitution by first producing monosulpho substitutions, by means of strong sulphuric acid at certain temperatures, and melting the monsulphonated compound with sodium hydrate, the ordinary dry caustic soda. In the case of naphthalene treated thus with sulphuric acid, the naphthalenmonosulphonic acid is produced according to the following formula:

$$C_{10}H_8 + SO_4H_2 = C_{10}H_7SO_3H + H_2O,$$

which on being melted with sodium hydrate, yields naphthalene hydroxyl or naphthol, as per formula herewith:

$$C_{10}H_7SO_3H + 2(NaOH) = C_{10}H_7SO_3Na + OH_2 + NaOH$$
$$= C_{10}H_7OH + SO_3Na_2 + OH_2.$$

According to the different temperature employed in the sulphonation of the naphthalene, either α or β naphthol is derived by the last process. The naphthols thus produced are usually purified by distillation and brought in the market as crystalline masses of reddish color, and a disagreeable and pungent odor, as shown in the specimen herewith submitted.

The β naphthol crystallizes in scale-like clinorhomboidic lamina from watery solutions, whilst in a molten state it represents clinorhomboidic prisms. It dissolves in 520 parts of water at 60° F., and in 75 parts of boiling water. It is readily soluble in alcohol, ether and chloroform. An aqueous solution is colored yellow by chloride of lime, and by heating this solution yellow flakes separate. It melts at 122° C. (Schaeffer), but a mixture of both α and β naphthol melts at a lower temperature than either alone. Compounds with alkaline metals or ammonia and alkaline earths are not stable, and separate easily, either by evaporation or in contact with carbonic acid.

The naphthols stand in the same relation to naphthalene as phenol to benzol and cresols to toluol. If one of the six hydrogens in benzol is substituted by hydroxyl, phenol is obtained; in the same way are cresols and naphthols formed. By this analogy of constitution of naphthols, phenol and cresols, the inference may easily be arrived at, that they may prove alike in their disinfectant character as well, and in order to prove this I undertook a series of experiments. Of course the commercial naphthol to that purpose was out of question, and I experimented, therefore, first to obtain a naphthol free from odor. As the crude article contains, at contaminations, sulphur and sulphurous acid, the sublimates thereof will yield, besides the naphthol crystals, also sulphureted hydrogen, thionaphtholes, carbolic and cresylic acid, thiophenols and the like, to which ordinary naphthol owes its pungent and disagreeable odor. I avoided this all by passing a rapid current of steam through its aqueous solution, expelling thus all volatile by-products, and obtained naphthol thus in its greatest state of purity, in beautiful silver crystalline scales, as here submitted. This naphthol may again be sublimed and obtained then in elegant white crystals as here shown, but by the heat employed more or less decomposition again takes place and renders the product somewhat odorous and pungent.

In order to test the disinfectant and antiseptic properties of my inodorous naphthol, I added one part thereof in powder form to 480 parts of urine, which at the expiration of six months, at a varying summer temperature, manifests no odor or signs of decomposition, while another of the same urine without addition of naphthol had a strong putrid odor already, after standing for three days only. To this latter I added, after standing thus for eight days, some of my inodorous powdered naphthol in the above mentioned proportion, and in twenty-eight hours it had lost its putrid odor and has kept thus up to the present writing, when no putrefaction or signs of it can be detected in either specimen. The same experience I have made with meat immersed in a solution of naphthol in 520 parts of water, as well in other experiments similarly conducted.

Experiments with solutions of the compounds of naphthols with alkalies or alkaline earths prove that these act very much less antiseptic than the solutions of pure naphthol; soaps, containing four to ten per cent. of free naphthol, were found excellent and serviceable in removing odors of putrefaction or decomposition from hands or cloths. They are also very efficacious in destroying clothes or body-lice, as naphthol is a very active parasiticide. If naphthol is evaporated by means of heat, the air in rooms contaminated in consequence of disease or otherwise, will be found to be rapidly deodorized and rendered fresh and sweet without other odors, making it thus of the greatest value for sick-rooms, hospital wards, dissecting-rooms, etc.

As carbolic acid has many disadvantages, and is not the deodorant or antiseptic *par excellence*, the inodorous naphthol can certainly take its place in every respect. As naphthol has been described variously as poisonous and injurious to the animal economy, which by its composition and analogy was not apparent, I felt it my duty to experiment with it in regard to such, and commenced at once without hesitation, by taking it internally; one part dissolved in 3,000 parts of water produced at first heart-burn, a slight sensation in the right lumbar region, and some dizziness. Of that solution an equivalent amount was taken to represent a half-grain.

These symptoms disappeared after continuing its use for some days, and while the urine showed upon analysis traces of naphthol and naphthol compounds, no albumen or blood could be detected therein. The doses then were gradually increased to four grains per day for six days, and still no untoward symptoms were discovered, while the warmth in the stomach directly after taking, was followed by increased appetite. Dr. Schofield, of Albany, reports to me that upon my solicitation he has used it largely, at first experimentally in the Albany hospital, where it has now become a staple article, and is used almost entirely to the exclusion of other disinfectants and antiseptics. They use it there for all kinds of disinfection in wards, sick-rooms, for wounds, etc., and have abandoned carbolic acid in all but a few cases, and always with the greatest satisfaction and success. This for the paper of Dr. Wolff.

His experience, as well as that of Kaposi and others, led me, some eight or nine months ago, to employ it both in private and hospital practice, and the success attained with it soon led me to further experiments. I found it to fully sustain the claim that Kaposi had made for it in scabies, psoriasis and chromophytosis, as well as in some of the chronic forms of eczema, in which it not only allayed the itching attendant thereto, but lessened the infiltration as well. In wounds and indolent ulcers I have found it a most useful detergent and deodorant, removing the fetor and establishing healthy action of the parts. Aqueous solutions, containing half grain to the ounce, I have used to great advantage as vaginal injections, especially in leucorrhœa and uterine carcinoma, as well as in gonorrhœal affections, both in male and female. In diphtheritic throat affections, it made a most useful gargle, as well as to remove the fetor of catarrhal and other affections of the buccal cavity. Its greatest value, however, arose from its disinfectant action of the evacuation of fever patients and rooms containing them, while by its absence of odor it did not tend to produce inconvenience both to patient and attendants. Combined with powdered talcum or starch, or both, and dusted into the shoes or stockings of those affected with fetid exhalations of the feet, it acts most satisfactorily, and its effects are equally as good in the same affection involving the hands, axillary and inguinal regions. Combined with other ointments in the proportion of from one to ten grains to the ounce, it not alone preserves the unguent from decomposition, but exercises also an antiseptic action to the parts and the exudation therefrom. A slight admixture to an experimental sample of lard has preserved the same in excellent condition throughout the hot summer months. In chronic psoriasis, particularly when there is great infiltration, a five to fifteen per cent. ointment has frequently been attended with good results. It has also been very effective in squamous and fissured eczema, used in combination with lard or gelatin.

To test for myself its antiseptic properties in comparison to that of carbolic acid, I mixed two whites of an egg with equal weight of water and took one-half of this mixture in one vial, adding one grain of crystallized carbolic acid, while to the other half in another vial I added one grain of Dr. Wolff's odorless naphthol. After the expiration of five days the carbolized albumen assumed a putrid odor, whereas the naphtholized part, though discolored by the naphthol, remains to this day, twenty days after the experiment, without odor. A quantity (about half-pound) of meat already commencing to putrefy, was also at the same date immersed in a saturated aqueous solution of naphthol, with the effect of arresting the putrefaction and preserving it for some time.

After using naphthol so long and successfully without any untoward occurrences, I read to my astonishment and alarm that Dr. A Neisser, in the "*Centralblatt fur die Medizinischen Wissenschaften,*" 1881, No. 30, reported most extraordinary toxic effects obtained with naphthol, and that also Kaposi reported having seen hæmaturia, ischuria, vomiting, unconsciousness, and eclamptic attacks in a boy after the external application of naphthol. Also that Squire reports, in the "*British Medical Journal,*" January 14th, 1882, of it producing blisters and irritating the skin.

Dr. Piffard regards it as a dangerous remedy, and Prof. Rapon, while he reports good results with it ("*British Medical Journal,*" p. 750) in scabies, prurigo, and eczema, advises in prolonged cases simple ointment to be substituted every fourth week, to avoid any possible risk of absorption.

Dr. Neisser stated that one gramme of a saturated solution (which in water would contain about $\frac{1}{30}$ grain of naphthol) injected hypodermically in a dog produced hæmaglobinuria, and shortly afterwards death.

To verify these accounts and satisfy myself on the toxic effect of pure naphthol, if any it possessed, I administered to one rabbit, repeatedly in twenty-four hours, thirty-four minims of a saturated aqueous solution, hypodermically, without any result, either to inconvenience the animal, increase his temperature, diminish his appetite, or cause lethal effect. This method of treatment was pursued for five days, not less than four to five injections being made per day, and the result was still the same. Determined to obtain toxic effects with it, and, if possible, to demonstrate its toxic action by a post-mortem examination, another rabbit was fed, at first, every three hours with one grain pills of naphthol, and subsequently with two and four grain pills, at the same intervals, but, beyond increasing the appetite of the animal, no special effects were apparent. In consideration of this, one of my assistants, Dr. Charles S. Means, and my student, Mr. F. C. Waterman, volunteered to take naphthol themselves internally, to test, if possible, its action upon the human organism. They commenced with one-quarter of a grain dose every two hours—their pulse, temperature and urine being subjected to the closest inspection both before and after. The second day they took a half grain every two hours; the third, one grain every three hours; the same on the fourth, while on the fifth and sixth they took two grains every three hours, and on the seventh five grains twice daily. The pulse and temperature did not appear to be affected by this, nor was at any time albumen or blood apparent in the urine. Though they experienced great warmth in the epigastric region after each dose, that passed away in a short time, but left them with slight vertigo, buzzing of the ears, with all evidence of cerebral hyperæmia. The alvine evacuations were softened and of mushy consistence, changed to a clay color, and in one of the cases increased to diarrhœa.

Selections.

New York Clinical Society.

A REGULAR meeting was held September 28, 1883, Dr. J. H. Emerson chairman for the evening.

STRANGULATED HERNIA.

Dr. Robert Abbe related the histories of two cases in which he had recently performed kelotomy. The first case was in a boy of ten years. Symptoms of strangulation had existed three days when the case was first seen. Taxis was tried, and it was at first thought that entire reduction had been effected. Closer examination, however, showed a small tumor in the groin which had not gone back. The symptoms persisted, and, after waiting two days, during which time the temperature rose to 102° Fahr., he operated. Upon cutting down, he found a bubonocele of about the size of a walnut. It was found necessary to slit up the whole inguinal canal before it could be reduced. The intestine was of a purplish color, but showed no signs of gangrene. About two ounces of bloody serum were found in the sac, which was opened. Full lister dressings were used in this case, and, without any untoward symptoms, the boy went on to a perfect recovery.

The second patient was a man of fifty-seven. Five days before coming under observation his hernia, an old one, had come down, and he was unable to reduce it. He took large doses of salts, castor oil and other cathartics for three days, eating nothing meanwhile, growing steadily weaker, and vomiting frequently. The vomiting finally became stercoraceous. The patient walked into Dr. Abbe's office. The hernia was quite large, a left oblique inguinal, and descended into the scrotum a little distance. Taxis was tried for fifteen minutes without any benefit, and the man was sent home. A few hours later he was visited, with the intention of operating, but before this was done taxis was repeated for about fifteen minutes, with some force, but very carefully. Upon cutting down, a piece of intestine consisting of two coils was found, of a dark mahogany color, but not gangrenous in appearance. The finger could be passed quite easily within the neck of the sac. The constriction was found to be at the internal ring. This was divided, and reduction was easily accomplished. Before it was returned, the gut was noticed to be very much colder than the rest of this intestine, and it was thought that this cold body in the peritoneal cavity might have added to the shock which followed.

The thick sac was dissected off to make the operation a radical cure. The canal was closed with two deep silver sutures, and the integument by catgut, and a drainage-tube inserted.

The patient rallied a little after coming out from the anæsthesia, but then sank again and died, from shock, five hours after the operation. No autopsy was made. It occurred to the doctor that perhaps the repeated taxis had increased the shock. He should not employ it in another case of the same duration, for, had a slight ulceration at the neck been present, rupture of the intestine was almost inevitable, no matter how carefully taxis was made.

Dr. R. J. Hall had recently read a review of a paper advising prolonged and repeated taxis, in which this was severely criticised. He himself was opposed to it, now that the danger of the cutting operation had been so much lessened by the employment of thorough antisepsis. In regard to the point that it was shock rather than septicæmia that caused death most frequently, he said that it was the shock of the strangulation rather than that of the operation. Many German surgeons were coming to regard shock after operations as always dependent upon septicæmia.

Dr. L. E. Holt thought we should be governed in our employment of taxis by the acuteness of the symptoms. It was manifestly useless to prolong taxis in those cases of primary strangulation in which severe symptoms developed in a few hours, as the constriction was usually very tight, and every hour that the operation was postponed diminished the chances of success. In cases where the symptoms were three or four days in coming on the case was different.

SALIVARY CALCULUS.

Dr. Abbe also related a case of calculus of Wharton's duct and presented the specimen, which was of the size of a large pea. The patient was a man of thirty, who for two months had been suffering from what was supposed to be an ordinary abscess in the floor of the mouth opening to the right of the frænum. An induration had existed there for some months before suppuration took place. It appeared like a sinus leading to necrosed bone, and, a probe being introduced, something resembling this was struck. The sinus was slit up, the small calculus was removed, and prompt recovery took place.

Dr. C. B. Kelsey had come across one in the dissecting-room, in the substance of the submaxillary gland, of about four times the size of the one shown by Dr. Abbe.

CANCER OF THE RECTUM.

Dr. Kelsey reported the following case of cancer of the rectum high up, which had presented great difficulty in diagnosis in its early stage The patient was a gentlemen of forty-eight, without any family history of cancer, who came to the doctor saying he had hemorrhoids. For two weeks he had complained of pain in the sacrum, which was so severe as to keep him awake at night. He had had a sort of diarrhœa for the same time, the passages being streaked with blood. On examination, nothing whatever was found. A full-sized bougie was passed in its whole length. An enema of three pints was given easily. These signs were thought sufficient to exclude stricture. The patient had an attack of dysentery three years before, but no rectal symptoms until two weeks before. By exclusion, Dr. Kelsey arrived at the diagnosis of cancer high up, although the general condition of the patient was excellent, and no infiltration could be made out.

Bismuth and morphine suppositories were ordered with the effect of relieving him of his bloody diarrhœa in a week. He was then sent to Europe. On his return, a few months later, the cancerous cachexia was well marked, and the infiltration could be felt through the abdominal walls. Rectal symptoms were absent, however. So firmly convinced was the doctor upon his first examination of the diagnosis of cancer, that, had he believed in the operation, which he did not, he should not have hesitated to cut down, with the idea of excising the growth. Of the ten patients on whom the operation had been done, five had died immediately after the operation, and the remainder had not lived longer than they otherwise would have done.

In reply to the question, whether he considered a fixed pain in the sacrum pathognomonic of cancer high up, Dr. Kelsey said that he did, when it was associated with a muco-bloody discharged, and no other cause could be found for the symptoms.

Dr. Abbe asked if an acute exacerbation of an old dysenteric ulcer might not give similar symptoms, though not visible on examination.

Dr. Kelsey thought it would not produce the same fixed and severe pain.

SYPHILITIC DISEASE OF THE RECTUM.

Dr. Kelsey reported another case of ulcers of the rectum, undoubtedly syphilitic, promptly cured by local treatment, in which constitutional measures had produced no beneficial results. The patient had suffered from gummata in various parts of the body, and gave a clear history of syphilis. For several months he had suffered from pain in the lower part of the abdomen and a mucous discharge. He had been at the Hot Springs for treatment, and had been saturated with mercury and the iodides. On examination, there were found just within the sphincter two ulcers, one an inch, and the other nearly two inches in diameter. They were not elevated, and could be easily felt with the finger. Strong nitric acid was applied, and the patient was put upon a milk diet and kept in bed. The pain disappeared at once, and in a month they were perfectly healed.

Prostitution.

THE following is copied from the *Canada Lancet*, translated from the Italian into Spanish by the *Revista Medico-Quirurgica*, a Buenos Ayres journal, and from the Spanish into English by Dr. J. Workman, of Toronto:

Let us now look on the reverse side of the medal, at what takes place in London, in relation to this most interesting subject. In that city prostitution is free, and there are in it more than 50,000 prostitutes. These women are addicted to whisky and gin, and they are to be met with in every street in the night, and frequenting all the cafes and beer and liquor establishments, and the vestibules of the theaters. They congregate in the brothels, or nocturnal houses, in the long rooms frequented by sailors, and in the hells where they are to be found in great numbers.—(Ryan, *On Prostitution in London*, 1836). In some parts of England there are obscene dens in which girls between twelve and fifteen years of age, half naked and almost dying of hunger, prostitute themselves for a few pence.—(Lecour; *Prostitution in Paris and London*, Paris, 1877). In 1864 more than 6,000 women, who had no other mode of living than prostitution, appeared before the tribunals of London for various offenses. May we not now say to the English ladies of the confederation, "Give heed to the beam that is in your own eyes?" It is easy to understand why in London the consulting annexes of the Lock Hospital, Guy's Hospital, the Royal free Hospital, University College, the Westminster and the Metropolitan free Hospital, are crowded with venereal applicants, for those admitted as in-patients are not numerous. In 1865 the syphilitics, aided in these hospitals, were 1,846. —(*Lecour*). It is besides calculated that 20 per cent. of those having affections of the eyes, presenting themselves at the Ophthalmic Hospital, have syphilitic infection as the cause. The Harveian Medical Society of London published in 1867 a report, in which was shown the great abundance of venereal affections and syphilis in that city. In the Hospital for Children it was shown that, in 1,000 surgical cases, 93 boys and 106 girls were syphilitics.

We have now seen that venereal diseases, and especially syphilis, abound in those places where prostitution is free and unwatched,, but it may appear a paradox that these diseases multiply and assume aggravated form still more in those countries in which prostitution has been persecuted, and, if we should judge from appearances, abolished. I have already spoken of Rome, a city in which syphilis has made great ravages, and if any one desires to know what occurred there in the years from 1849 to 1870, he needs but to read the report of Dr. Jacquot, physician of the hospitals of the French army of occupation, in which he writes thus: "Miserable creatures prostitute themselves nightly in the dark angles of houses, under the less frequented porticos, on the seats and borders of walks, and even in front of St. Peter's." And what is certainly still worse: "Prostitution in Rome is carried on in all parts, and, disgraceful to relate, frequently in the interior of families." The city of Munich presents to us another example: In 1811 the Bavarian Parliament passed a law by which severe penalties (from one month to two years' imprisonment) were inflicted on all women following prostitution. All the houses of tolerance were immediately locked up, and all visitation and medical inspection ceased; well, what followed! Whilst in the two preceding years the number of men and women with venereal disease admitted to the hospitals had averaged 1,006 yearly, in the five succeeding years the average rose to 1,500, and in 1866 it reached to 1,835—almost double the number of diseased, and the houses of tolerance were closed and visitations suspended!

These facts teach us another lesson, which relates to the proportion of venereal cases in the sexes. During the period of the tolerance and vigilance of prostitution, there entered the hospitals 203 men affected with syphilis for every 100 women, but when visitation was suppressed the figures rose to 335 men for every 100 women, which shows that the women did not voluntarily go to the hospitals when they were diseased, but continued spreading the contagion, regardless of the sad consequences. The Director of the Syphilitic Hospital at Hamburg also states in his report that after the suppression of the houses of tolerance, syphilis extended more among men than among women, as was observed in Munich. In January, 1876, there were in the hospital 63 men and 127 women, but in the corresponding month of 1877, five months after the suppression, there were in the establishment 104 and 98 women. Visitation is then necessary under a hygienic point of view, principally for the woman, as a syphilitic man may infect only a small number of women, whilst a woman may transmit the disease to many men. Further, it is rare that a syphilitic man does not seek for treatment, but this fact is not observed in women; consequently, as the prostitutes are not subjected to sanitary visitation, and in its place the system of absolute liberty, or that of prohibition is adopted, we see, under whichever of the two, how disastrous are the results both to hygiene and to morality.

We must now give our attention to another gratuitous assertion, which has been made by the optimists of the Federation, and reproduced (I say it with concern) by some medical men: It has been affirmed with extreme flippancy that there is in reality nothing to be feared from syphilis, that it has lost the malignity which it had in the 15th century; that it is seldom mortal, and, in fine, that it is diminishing and has become very rare. What substantiality is there in these optimistic ideas? Let us examine the facts. It appears from the report of Dr. Bruckner, presented to the Reichstag in February, 1877, that during the year 1876 there were detained by the police in Berlin 16,168 women, of whom 879 had syphilis. In the same year 895 soldiers of the Prussian army affected with syphilis entered the hospitals, and in 1872–4, 2,982. Among the members of the societies of operatives in Berlin, there were 5,817 syphilitics in 1878. So syphilis yet exists in Prussia! Of the soldiers of the French army there entered the hospitals in consequence of syphillis, 2,638 in 1875, not including simple venereal cases; in 1876 the number was 1,864, and in 1877 it was 1,887, or in all, in the three years, 6,389. In five hospitals of Paris, 1,403 syphilitics were admitted in 1867, and 1,551 in 1868. In the city of Paris there died of syphilis in three years (1875-77), 476; or eight to every 100,000 inhabitants, yearly. The city of Vienna, in 1876, registered 42 deaths from syphilis, or six per 106,000 inhabitants. In London, in the three years, 1846–8, 127 deaths from syphilis were registered; in 1866–8, the deaths registered from the same cause 1,357, and in 1876–8 they were 1,376, or thirteen per 100,000 annually of the inhabitants. In England and Wales the numbers given as deaths from syphilis were, in 1864, 1,550; in 1867, 1,698; in 1870, 1,858; in 1874, 1,997, and in 1878, 2,182. Deaths from syphilis are, then, very frequent in

England, and they are constantly increasing. Let us now pass to Italy. I have, in my *Nosological Geography*, brought together the known statistics, in order to study the frequency of syphilis in Italy, of which I now proceed to present a brief summary. In the fourteen years, 1863 to 1876, 303 young men, coming chiefly from Lombardy, Campania and Sicily, were declared useless for military service, because laboring under syphilitic cachexia. In the period 1875–8, the number of deaths from syphilis in eighteen Italian cities reached the considerable figure of 1,708, of which the greater part were deaths of children under one year old.

With respect to the city of Turin, we have been able to establish interesting data and to see whether the mortality caused by syphilis had increased or diminished. In the ten years, 1828–37, 1,945 individuals—or 194 per year, on the average—died from syphilis; the city, suburbs, neighborhood and the garrison contained 124,000 inhabitants. In the more recent period, with over 214,000 inhabitants, it has had only ten deaths per year from syphilis! Does this not indicate a very notable hygienic improvement? And has it not been brought about under the domination of the enforced regulations, authorizing vigilance over prostitution, and under the influence of other hygienic measures adopted for the purpose of limiting venereal affections? In the period, 1828–37, the mortality from syphilis was 156 in every 100,000 inhabitants, yearly; in the period, 1869–70, the number went down to four per 100,000—a result obtained in only fifty years! We might, then, hope that in Rome, in the course of fifteen or twenty years, the proportion of sixty-four per year in 100,000, might be reduced in like manner, though certainly not under the system of liberty, but of vigilance. Professor Gamberini states that he treated, in the syphilis hospital of Bologna, nineteen syphilitic prostitutes in 1879, and thirty-eight in 1880. In the establishments for venereal and cutaneous diseases, in Pavia, directed by Professor Scarenzio, according to Dr. Raimond, 261 cases of constitutional syphilis were treated in 1873–80.

Intestinal Obstruction.

The innate disposition of human beings to argue, the almost invincible desire of men to differ from one another, was never more clearly demonstrated than in the discussion of the important question of "Intestinal Obstruction" at the recent meeting of the *British Medical Association.*

From the *British Medical Journal*, October 6, 1883, we note that the discussion was opened by Mr. Rushton Parker, the essence of whose address was that in all cases of intestinal obstruction, unless we are absolutely sure of the cause of the obstruction, we should avoid all active treatment, and content ourselves with merely watching the case carefully and noting any symptoms that may aid us to an accurate diagnosis, when our line of treatment becomes plain.

The constitutional symptoms of intestinal obstruction are practically identical, no matter what the cause may be, and until some special sign calls our attention to the particular cause, Mr. Parker's expectant plan of treatment is clearly the rational one.

Suppose we have obstruction from invagination, or intussusception; we know that nature cures this condition by a process of gangrene of the incarcerated gut and union of the upper and lower segments of the unimplicated intestine; suppose now, before this union has become firm, or while the process of eating through of the invaginated gut is going on, we administer purgatives or enemas to remove the obstruction—will we not almost necessarily produce perforation, extravasation, and death? Hence Mr. Parker's wise injunction: *When in doubt, use opium enough to control the pain, stimulants enough to keep up the strength, and avoid solid food;* if invagination be the trouble, this treatment will put the bowels in "splints," until nature restores the continuity of the canal; if it be not so, then no harm results from our treatment.

But on the other hand, if we can clearly make out the cause of obstruction, without excessive and likely to be injurious manipulation, and if it calls for surgical interference, as in strangulated hernia, adhesive bands binding down the gut, carcinoma or some other tumor pressing on the bowel, Mr. Parker advises operation.

Several of the distinguished gentlemen present, catching only Mr. Parker's first part, or expectant plan of treatment, and either willfully not hearing his wise regulations concerning the indications for operative interference, or actuated by a desire to hear themselves talk, roughly handled Mr. Parker.

They assumed that he advised the "let-alone" treatment in all cases, and they censured him severely for it, indicating that operation was imperatively demanded in certain instances, and citing cases to sustain what they claimed, all of which Mr. Parker had already said.

His views were probably a little more conservative than those held by some of his critics, for Mr. Lawson Tait held that it was wholly unnecessary and dangerous to wait for an accurate diagnosis, and he advocated early opening of the abdomen in the middle line, with the formation of an artificial anus in the first piece of distended intestine which presented.

With all respect for this distinguished opinion we must think that the error of such precipitancy is evident; for should the obstruction prove a naturally curable one, as in many cases it would, we have not only subjected our patient to a dangerous operation, but we have afflicted him with a disgusting and inconvenient deformity. Again, by such a procedure, we are just as likely to open the gut *below* as *above* the obstruction, and in such an event we are truly "out of the frying-pan into the fire."

It may be much more brilliant surgery, but it seems more in accord with the dictates of common sense and prudence to postpone surgical interference, either until our diagnosis is sure, or until nature has demonstrated that, unaided, she is incapable of correcting the trouble.

Billroth has set the example of bold and almost reckless surgery; and in these days of competition and overcrowding, he has plenty of disciples, anxious to gain notoriety by similar boldness; but the teachings of our really great masters, of nature and of experience, clearly indicate that the resort to the knife should be truly a "*dernier resort*," and that it is always best to give nature a fair show.

It is easy enough to *cut*, but it is sometimes extremely difficult to *heal*, and it behooves us to think twice before we cut once.

There are certain clearly defined cases of diseased condition, where the knife is the only corrective, and "intestinal obstruction" is not one of them. We will better fulfill our noble mission, if we patiently watch and wait, until nature tells us in unmistakable terms that her opponent is too powerful for her great energies, and indicates clearly that she requires the assistance of the surgeon's knife, which, we cheerfully admit, in certain cases, such as tumors, constricting bands, and the like, she does.—*Philadelphia Medical and Surgical Reporter.*

The Influence of Calomel on Digestion.

Dr. Vassillieff has found, from experiment, that the presence of calomel, at least up to the amount of five grammes, in the alimentary canal, does not interfere with the gastric juice, nor affect the triple influence of the pancreatic fluid on albumen, fat and starch; on mixing the latter fluid with fibrin and calomel, the formation of certain products, idol, etc., always appearing as a result of prolonged digestion under normal circumstances, is prevented. The gases generated in the process of pancreatic digestion contain none of the usual products of fermentation and decomposition when calomel is present: sulphuretted hydrogen and pure hydrogen are absent, carbonic acid is diminished to from two to ten per cent.; whilst, under natural circumstances, from fourteen to fifty-four per cent. is found in the gases evolved by the action of the pancreatic fluid. In fact, calomel prevents all other changes in nutritious substances, save those produced entirely by the digestive secretions, decomposition and retrogressive processes in albumen being entirely checked. Calomel also prevents butyric acid fermentation, as Vasillieff found by experiments on cheese. The action of calomel readily explains the cause of the green color of fæces passed by patients to whom that drug has been administered. Hoppe-Seyler rightly attributed this coloration to the presence of unaltered bile. Now, under normal conditions, bilirubin and biliverdin are changed by a process of decomposition into hydro-bilirubin, and thus become no longer recognizable in the excretion: but this process is arrested by calomel and the coloring agents, unaltered, give the fæces their peculiar bright green hue.

These researches are described at length by Dr. Vassillieff in the *Zeitschrift fnr Physiologische Chemice*, vol. vi, page 112. He has found that this action of calomel is due to its power over the micro-organisms intimately associated with the process of decomposition which takes place in food during digestion. The drug prevents the development of micro-organisms in the digestive fluids, and also destroys any bacteria and micrococci already developed. This fact was first proved by artificial digestion. Vassillieff then made a series of experiments to find whether calomel had the same influence in natural digestion. Thirty grains of calomel were administered to a dog, in two doses, and the animal was killed a few hours later. Under all precautions, the contents of the intestines were then carefully analyzed. Neither idol nor phenol could be found; and it will not be forgotten by those who study contemporaneous physiological research, that other agents—such as salicylic acid—prevent the formation of idol; and that pancreatic mixtures, formed from natural pancreatic juice, or infusions of pancreatic glandular tissue, undergo septic changes with very great rapidity in spite of all precautions. None of these changes, nor any formation of idol, occurred in the food taken by dogs to which Vassillieff administered calomel. On the other hand, leucin and tyrosin were found in abundance. Under natural circumstances these products of pancreatic digestion are so rapidly decomposed that they can not be detected in semi-digested food. Hence calomel has no influence on the action of digestive fluids, but entirely prevents those true retrogressive and putrefactive changes whereby the highly unstable products of these fluids are rapidly decomposed, and micro-organisms quickly developed in great numbers. When calomel enters the alimentary canal, leucin, tyrosin, bilirubin, and other substances, remain unchanged, and bacteria are checked and killed.—*British Med. Jour.—Chicago Med. Jour. and Ex.*

Porro's Operation.

BY THOMAS SAVAGE, M. D., M. R. C. P.

THE question of the propriety of performing the Cæsarean Operation may require consideration at the hands of every practitioner in obstetrics, at any moment, without much warning, or even time for deciding what kind of an operation it shall be. It therefore behooves the obstetrician to have as clear views of the subject as possible, and to be prepared with a plan, the best that is attainable, for carrying them out. I have had the opportunity of performing this operation on two occasions, and the experience gained from them has been such that I feel most strongly the advantages which it possesses over the old Cæsarean Operation. The indications for this operation are the same, in every respect, as those for Cæsarean section, and have, as we all know, been most thoroughly considered and agreed upon by the great obstetricians of the past.

In 1876 Porro, of Pavia, first carried out his proposal of Cæsarean Hystero-Oophorectomy in a case which otherwise would have been subjected to the old operation. It was a case of rickets; and both mother and child lived. His example has been since followed in numerous instances; and in the first and only statistical table that I have seen 72 cases are recorded, with a result of a successful issue to 30 mothers, and of a fatal one to 42. The children born alive were 56; 16 being stillborn. These latter figures would not be expected to be either better or worse than if Cæsarean section had been performed. It is rather with the maternal mortality that it shows in a decidedly more favorable light. The late Dr. Radford gave a table of 99 cases with a mortality to the mother of 85.71 per cent.; 14.28 per cent. being saved, after the Cæsarean Operation; while the 72 cases of "Porro" show a maternal mortality of 58.3 per cent.; recoveries 41.6 per cent.

It must be borne in mind that this is the first table published, and it may fairly be presumed that later tables would show a better result; and also with the greatly increased skill in abdominal surgery of the present day, that a result may be reached almost equal to that attained in Supra-Vaginal Hysterectomy for Myoma, of which operation it is in reality only a variety.

In this country Porro's Operation, so far as I have been able to ascertain, has been performed four times. The first was by Prof. A. R. Simpson, in 1881; patient died. Second, in July, 1882, by Mr. Knowsley Thornton; the patient, I believe, dying in from one to three weeks; the third was in July, 1882, by myself; the patient recovering perfect health; the fourth case was in September, 1883, also by myself, and is a recovery. Porro himself has done four cases. His last one was done at Milan, and lasted only 20 minutes. Patient was reported as doing well at the end of a week. Neither of my cases was at full term; and I can easily understand this being alleged as a reason for the recoveries, as being more likely to be expected than if performed at the full period. The same must also be said of Mr. Thornton's case. I do not think that it would be an argument of any value.

The advantages of Porro's Operation are very great, compared with the Cæsarean section. They are: Greater simplicity of performance; greater safety, in consequence of treating the uterus as if it were a large myoma; much less likelihood of excessive hemorrhage; and, in the event of this occurring, however, there is a very ready method of stopping it by the clamp, which itself forms a step in the operation.

The greatest danger in the Cæsarean section has always been to know how to treat the uterine wound, and endless has been the ingenuity displayed in devising sutures, both simple and complicated, and other means of securing closure of the cut uterus, and thereby the prevention of blood and other fluids oozing into the peritoneum after all has been closed up. In neither of my cases did a drop of blood enter the abdominal cavity during the operation. I have thought the matter over very carefully for years, and I have long come to this, that, if I were asked to write down full details of the operation, I should declare that I was not prepared to say off-hand how I should treat the uterine wound, until I had to do it at the time of operation. No plan that has yet been suggested seems to be satisfactory; it is the greatest bugbear of the operation. This is of course avoided by "Porro."

To my mind, the most important *special* detail of the operation is, that we should treat the uterine stump by the extra peritoneal method, *i.e.*, that we should place a clamp round it. It was in consequence of not doing this, that I think Dr. Simpson's case was a failure. At the time it was done there was a kind of reaction abroad, against the clamp in ovariotomy, in favor of the ligature. Recent experience in hysterectomy has brought back the clamp for this kind of pedicle, at all events. Such a stump as the uterus forms is almost as difficult to make safe as the uterine wound in the Cæsarean operation, unless it is brought outside. With all the blood cleared from the peritoneum, and the uterine stump safely clamped and brought outside, there is no loophole for septic absorption by the peritoneum at the time of sewing up the external wound, and here we have a marked contrast to the condition of things when, as in Cæsarean section, there is an open or partially open uterine wound, connecting the healthy peritoneum by direct continuity of tissue with the vaginal structures, often inflamed and commencing to slough, the consequences of repeated, but vain, previous attempts at delivery. What a pity that practitioners will make these futile attempts, prolonged over many hours, much to the distress and danger of the patient. Although I deprecate them strongly, yet I now feel that with a "Porro" they are not nearly so likely to be a source of danger as formerly.

The operation may be performed with a larger or a smaller incision. In the former case the whole gravid uterus is dragged outside on to the abdomen, intact, and the clamp is then applied. The uterus then being opened, the child is extracted, and the fundus and body of uterus cut off, with the ovaries, just above the junction of cervix and body. A small scalpel is best for cutting the mass away; a large sweep, *e. g.*, of an amputating knife, might damage the child. With this incision, which must extend considerably above the navel, there is the after trouble of the weak abdominal wall, and a tendency to a ventral hernia; whilst, on the other hand, it is more than counterbalanced by having the abdominal cavity perfectly free from blood, and therefore, by so much, is the patient saved an additional risk. This was the case in my operation.

With the small incision the uterus would be tapped to lessen its bulk before it is drawn out. In this case more or less bleeding must occur, and the abdominal cavity will run a risk of having blood, varying in amount, in it, which adds to the delay of the operation, and also to the risk. Considerable hemorrhage might occur from wounding the placental site. A friend told me that, when recently in Vienna, Gustave Braun, in tapping the uterus while it was still in the abdominal cavity, had such violent hemorrhage that the patient died in consequence. It may be a question whether, seeing the mother's life is the first to consider, and that the operation by the longer incision is easier and perhaps safer, we may not sometimes, when we have a choice of time for operating, disregard the child and operate, say at the sixth or seventh month. This I did in my second case.

It seems to me that to make a very small incision, open the uterus, and extract the child from it while still in the abdominal cavity, is unnecessarily to endanger the patient's life. It has, however, been suggested in this mode of proceeding, that we should place a temporary ligature of cord or such material round the pedicle before we cut into the uterus. This, if successful, would very greatly control the amount of loss. There must, however, be taken into account the difficulty that would present itself in passing a loop of cord through a small opening and over or round the large uterine mass, and also the liability there would be, at the back of the abdomen, the cord being there out of sight, to nip a small loop of intestine. In my second case I noticed, when the uterine circulation was being arrested by the screwing up of the clamp, that the color of the mass assumed a very dark appearance, and hence, if much delay occurs at this stage, the life of the child would be endangered by asphyxia. It would therefore be well to constrict the uterus only sufficiently to secure firm hold of it, and to prevent any great amount of bleeding from the proximal end of stump when cut; and immediately after extraction of the child, which should be accomplished with all speed, to screw it up to necessary tightness. I do not suppose that involution of the stump of a gravid uterus would be much different from that occurring in the structure in a case of removal of a large myoma; but we find, as a matter of fact, when the clamp comes away, that there is a very considerable recession of the stump towards the pelvis. I have considered this to be attributable to the dragging downwards of the vaginal roof from tension rather than from excessive involution. It was particularly noticeable in my last case, and also in one of hysterectomy done a little while before. In the 'Porro'' case the clamp came away on the sixth day, and the patient was perfectly well in every respect up towards the end of the seventh day; only that I noticed how very deep down in the pelvis the stump had receded to. I should have been alarmed at this deep hole, only that I had seen a similar state of things in several other cases, where there was nothing but a few granulations, a little adhesive lymph, or a thin layer of peritoneum between the patient's recovery and her almost certain death. In the above case I enjoined great care and quiet, and left her in the morning perfectly happy about her future. At midnight I was summoned, and found that, having been very uncomfortable in the rectum, an enema had been administered, and during the straining efforts at defæcation, the lower portion of the wound had given way, the stump gone quite down into the pelvis, and a large coil of intestine was protruding from the wound—the stump had, in fact, completely slipped its moorings through her straining. I at once washed and sponged out the pelvis as best I could, pushed back the intestine, inserted four sutures as deeply through a thick abdominal wall as was possible, though I found I was unable to include the peritoneum, having so limited a space to work in, and placed a drainage tube as deeply in the pelvis as it would go. In spite of this catastrophe the patient did well, and is now convalescent. I have, on several occasions used a strong pin to transfix the stump, below the clamp, either through the abdominal walls or outside the wound, and the above accident will make me use such a safeguard more frequently than I have hitherto thought necessary.

The constriction capable of being produced by a wire clamp is very great; much more so, I expect, than that by any ordinary instrument, with broad compressing surface, such as used to be employed in ovariotomy; and this fact accounts for the early separation which I have noticed. In my last myoma case the clamp came away on the sixth day, although the stump was a very thick one.

Another method of preventing the too great slipping downwards of the pedicle is for the two sutures in the abdominal wall immediately above and below the stump, in their passage across the wound, to pass through the peritoneal covering of the stump; this serves the double purpose of holding up the stump and also shutting off the end from the abdominal cavity very effectually.

The late James Blundell, who in reality lived before his time, in this as in other subjects showed his foresight; for he thought that the dangers of the Cæsarean operation might be considerably diminished by the entire removal of the uterus. He carried out his idea by operating on four rabbits, three of which recovered, the fourth dying in consequence of the ligatures slipping from their place. The late Dr. Radford says that ''Blundell's observations point out most clearly that he ought to be strictly considered as the pioneer in abdominal surgery. Porro doubtless based his opinions on Blundell's suggestions.''

To avoid the dangers of Cæsarean section Gaillard Thomas suggested and carried out a sub-peritoneal operation, which he calls Laparo-Elytrotomy. I am inclined to think it is more difficult of performance, no safer, and more liable to unlooked-for accidents than Porro's modification. I believe I am right in saying that it has been performed only twice in this country, viz., by Dr. A.W. Edis, and Dr. T. W. Hime, and in each instance with an unfavorable result. One decided advantage that ''Porro'' possesses is, that the patient is not likely to require a repetition of the operation. Instances are on record where the Cæsarean operation has been performed more than once on the same patient.

Hitherto the proposal to perform the Cæsarean operation upon a patient has been to sound her death-knell. In future, with a "Porro" at our disposal, we shall be able to give her hope of a fair prospect of recovery.

The name "Cæsarean" is derived from the mode of delivery; "*a cæso matris utero;*" and the word "cæsones" has been given as a general term for those who have been ripped or cut out of the womb. The term "cæsa res" has also been employed. Tradition says that Scipio Africanus, Julius Cæsar, and Edward VI. commenced their extra-uterine life in this manner.—*Birm. Med. Rev.*, November.

Malarial Hæmaturia.

A Clinical Lecture delivered at the Philadelphia Hospital, October 20, 1883.

BY JAMES TYSON, M. D., ONE OF THE PHYSICIANS TO THE HOSPITAL.

Gentlemen:—I have the opportunity this morning of presenting to you an example of a disease which, although not often met with in this latitude, is of frequent occurrence in southern climates, and is seen often enough in this latitude to make it important that you should know something about it. I shall first read the history which the patient has given us, after which I shall dilate upon the symptoms which she has presented, and account for them as best I can.

The history is as follows: "A. S——, twenty-six years of age, a widow with two children, descends from a family with no tendencies to disease. She was admitted October 6, 1883. She was well until September 14th of this year, three days after her return from the State of Delaware, where she had been for some days. The time referred to she was suddenly seized with a chill followed by high fever. This was repeated, and these chills continued until the time of admission, coming sometimes daily and sometimes on alternate days. When admitted, she complained only of severe pain in the back and abdomen, and of a feeling of lassitude and weariness. Examination of the urine showed it to be red in color and to be moderately albuminous, and the microscope revealed the presence of blood discs."

The symptoms which we have noted at the close of the history continued, except that there was a morning temperature which was normal, and an evening temperature slightly above normal, until the afternoon of October 15th, when she had a severe chill and the temperature rose to 105°. Of course, those of you who have had any experience with diseases of a malarial character, will have no difficulty in making the diagnosis that this woman has suffered from intermittent malarial fever, perhaps of the quotidian type, but the point to which I desire more particularly to call attention, is that on admission the urine was found to be bloody. In addition to the facts given in the history, she has told me that at times, other than during menstruations, her urine has been bloody.

Having discovered blood in the urine, we next sought to ascertain whether it was present all the time, or whether it intermitted, or whether there were times when it was more abundant than at others. In order to settle this question all treatment was omitted for a few days, that we might study the natural history of the case. Specimens of urine secreted at different periods of the day were secured, and I now show you portions of urine passed in the morning, afternoon and evening of two days. As you see, the morning specimens are very dark, and microscopical examinations show that they contain considerable blood; the afternoon specimens are not so dark, and contain less blood; while the urine obtained in the evening is still lighter in color and contains very few blood discs.

Taking the results of these observations in connection with the history which she gave, I had no hesitation in declaring this to be a case of malarial hæmaturia. This subject of malarial hæmaturia is one in which I have taken considerable interest, having been supplied with cases in rather more than the usual number, both from our own and distinct States. The diagnosis is not always as easy as it is in the present instance. Here we have a distant history of malarial fever, preceding the discovery of blood in the urine, and knowing that there is such an affection as malarial hæmaturia, we should be very likely to suspect that this was the cause of the bloody urine. Care must, however, be taken to separate this from the other causes of hæmaturia in women. There are cases of malarial hæmaturia in which there is no other symptom than the intermittent hæmaturia. At a certain period of the day the urine may contain blood and in a few hours be absolutely free from blood. In other forms of malarial hæmaturia, while there may be no distinct chill coincident with the appearance of the bloody urine, followed by fever, the patient may, at such times, feel a little nausea nd weakness, or the hands and feet may be cold, or there may be a slight chilly feeling coming on coincidentally, but with this exception there may be no symptom calling attention to the malarial character of the condition. The term intermittent hæmaturia, like the term intermittent fever, has become engrafted on this subject, and it is commonly thought that only intermittent hæmaturia can be malarial. I have seen a number of cases of continuous hæmaturia which were clearly malarial in their origin, and the proof is had in the fact that the conditions appeared in persons living in a malarial district and were cured by the administration of quinia and other anti-malarial remedies. It therefore does not follow that because the hæmaturia is continuous it is not due to malaria; in such cases it becomes necessary to consider the other causes of blood in the urine. In this climate the most frequent causes of hæmaturia, excepting malarial poisoning, are cancer and injuries to the bladder, and cancer and injuries to the kidney. In tropical climates there is a form of hæmaturia caused by parasites, but this is not seen in this country. In considering a case of malarial hæmaturia, it usually is not difficult to eliminate causes of this kind. In cancer of the bladder, or of the kidney, there will be other symptoms in connection with the condition of the urine. In cancer of the bladder there are pain and irritation with frequency of micturition, and the blood is mixed with pus. We never find these symptoms in malarial hæmaturia. In cancer of the kidney there will be pain in the renal region, enlargement of the organs and other matters in the urine beside the blood. In cancer of the kidney the blood may enter the bladder in the form of a clot, and give rise to a great pain like that of nephritic colic. This never occurs, so far as I know, in malarial hæmaturia. The hemorrhage occurs as molecular diapedesis from the small blood vessels, and as the blood passes drop by drop into the bladder, coagulation is interfered with and symptoms of nephritic colic are rarely present. In both cancer of the bladder and in cancer of the kidney the cancerous cachexia is present, although in cancer of these organs, and especially in diseases of the bladder, it does not develop so early as when those organs which are more important to life are affected.

The true nature of a hæmaturia has often been overlooked because attention has not been called sufficiently to this subject. The physician often does not think of the possibility of its occurrence. A short time since a specimen of urine was sent to me from one of the central counties of this State. Examination showed that it contained blood, and the hæmaturia was found to be continuous. The patient had a malarial history, and I suggested to the physician in charge of the case that it might be one of malarial hæmaturia. He candidly admitted that he had not thought of the condition. The man was put on three grains of quinia every three hours, and within twenty-four hours the hæmaturia had ceased.

Before speaking of the treatment, let me pause for a minute to consider somewhat further the characters of the urine in malarial hæmaturia. It of course contains blood, and, as a rule, blood corpuscles. But corpuscles may be absent and we may not have a hæmaturia, but a hæmatinuria or hæmoglobinuria. The blood corpuscles have been dissolved and we have a solution of blood pigment only. This may happen in mild as well as in severe cases. While there is under these circumstances no reasonable doubt that the color of the urine is due to blood pigment, yet it is important to be able to satisfy ourselves that blood pigment is present. This is done by making hæmin crystals. A little of the urine is taken and the phosphates are precipitated by a solution of potash. The blood pigment goes down with them. The precipitate is then dried and reduced to a state of minute subdivision; a very minute portion of common salt is thoroughly mixed with the phosphates, to which the blood pigment is attached, and the mixture is placed on a glass slide and covered with the usual thin glass cover. A drop of strong acetic acid is allowed to insinuate itself under the cover, and the slide is held over the flames of a spirit lamp until the acetic acid has nearly evaporated. The specimen is then allowed to cool and examined under the microscope. Usually there will be no difficulty in determining the presence of the little dark prisms of hæmin or hydrochloride of hæmatin, which can only be produced from the coloring matter of the blood. For the purpose of experiment a drop of blood may be taken from the finger and allowed to dry. A portion of this is mixed with a little common salt, the glacial acetic acid added and evaporated, and the crystals discovered as before.

Another important practical point to be remembered is that the urine may contain blood corpuscles at the moment that it is passed, but twenty-four hours later they may have disappeared. The reason of this is, that the bloody corpuscles are readily dissolved by alkaline fluids. The urine, especially in warm weather, undergoes alkaline fermentation, the urea is converted into carbonate of ammonia, and the resulting alkaline fluid soon dissolves the corpuscles. In such a fluid, white corpuscles may be found, for they are not readily affected by alkaline fluids. If the reaction of the urine happens to be acid and continues so, the red corpuscles will remain, although their shape and color may be changed.

In many cases of malarial hæmaturia, the urine contains tube casts. These may be either simple fibrinous or blood casts. This is always a valuable sign from a diagnostic point of view, because it proves that the blood comes from the kidney. At the same time, the absence of casts does not exclude the kidney as a source of blood.

Now, in regard to the treatment of this class of cases, I have told you that one proof of the malarial nature of this affection is that it is cured by quinine, and quinine is the remedy par excellence. Three grains every three hours will often stop a hæmaturia in twenty-four hours, but it should be continued longer to prevent a recurrence. It is not always as rapid in its action as this. Sometimes we have to continue its use for a longer period, and sometimes other remedies which have a reputation in malarial affections have to be substituted. Arsenic and the astringent preparations of iron are serviceable. I am now referring to the form of malarial hæmaturia which is seen in this climate and not to that which occurs in southern climates, and which often resists the action of quinia in a wonderful manner. I have found that in the more persistent form, the mineral waters which contain alum and iron, such as those of the Bath Alum Springs in Virginia, and the Jackson Springs in North Carolina, are of service.

Atresia Vaginæ—Recto-Vaginal Fistula.

Clinical Lecture by PROF. A. REEVES JACKSON, at the College of Physicians and Surgeons of Chicago, October 20, 1883.

GENTLEMEN:—The patient who is now before you has a clinical history which is full of interest. She is 45 years of age. She married at 20, and during the succeeding eighteen months had three abortions caused, as she supposed, by over-exertion. Menstruation, which, from the time of its commencement had previously been regular, painless, and normal in amount, now became profuse, and recurred every three weeks. She also had a continuous, abundant leucorrhœa of irritating character. During several years she was treated at intervals for ulceration and prolapsus of the womb. When about 29 years old, without apparent cause, she was seized with a severe chill, which lasted two or three hours, and was followed by febrile symptoms accompanied by excessive heat and pain in the pelvis, and a profuse hemorrhage from the parts which continued a full month. This illness confined her to the bed for three months, at the end of which time the inflammatory symptoms subsided. It was now discovered that the vagina had become occluded, and an examination revealed the fact that a medium-sized catheter could barely be passed into the canal.

Subsequently, various methods were used to enlarge the opening—sponge tents, different forms of dilating instruments, incisions, etc. Some of these attempts were followed by pelvic abscesses, and all of them by failure. Her general health became, as you may suppose, greatly impaired.

On December 30, 1875, she was admitted to the Woman's Hospital of the State of Illinois, and came under my care. Her condition at that time was most deplorable. She was anemic, emaciated, and so feeble as to be scarcely able to walk; indigestion, pain, and loss of sleep had made her excessively nervous and irritable. Her wretched condition was aggravated by the fact that, about this time, her husband commenced legal proceedings for divorce, which he subsequently obtained on the ground of impotence.

I found the vagina almost impervious. Just within its entrance the finger encountered a ring of dense, unyielding tissue, surrounding an opening through which nothing larger than an ordinary uterine sound could be passed. The tip of the instrument entered to the depth of an inch and a half. Abdomino-rectal examination detected the presence of hard masses of tissue in the recto-vaginal wall, and another as large as a hen's egg in the space below and behind the left ovary. The vaginal portion of the cervix uteri could not be distinguished, owing to the thickness and density of the inflammatory studding of the vagino-rectal wall; but the body of the organ was apparently of normal size and in normal position.

She expressed great anxiety to have something attempted for her relief, but was clearly in no condition to undergo so severe an operation as seemed necessary. Accordingly, several weeks were spent in treatment directed to the improvement of her general health, and at the end of a month she was considered in a proper state for the ordeal.

The operation was done December 3, 1875. The patient having been etherized, and lying on her back, with the hips drawn quite to the edge of the table, the occluding band was freely divided at a number of points, from within outward, by means of a probe-pointed bistoury, the cutting edge of which was purposely roughened in order to lessen the hemorrhage following its use. This band was exceedingly dense, and extended a half-inch into the vagina. The cutting was continued until I could introduce two fingers, side by side. I then discovered that there existed another band about three-fourths of an inch higher than the first, and apparently impervious, although I knew there must be an opening through it since the patient had regularly menstruated. This second obstruction, which was one-eighth of an inch thick, was cautiously punctured and the opening enlarged sufficiently to admit the forefinger. I then lacerated the edges in every direction, when suddenly there poured forth a stream of pus from the left side of the pelvic cavity. I had torn open the wall of an abscess, which had formed the egg-shaped swelling below the ovary. I could now feel the cervix uteri.

A glass vaginal dilator, an inch and a quarter in diameter, was next pushed in the entire length of the vagina and maintained in place by a perineal pad and bandage. A suppository of opium and belladonna was put into the rectum and the patient laid in bed.

The after-treatment consisted in the removal, twice daily, of the dilator, and the washing out each time of the vagina with a weak tepid solution of carbolic acid. At the end of three weeks the patient had recovered from the effects of the operation.

December 27, I was enabled without difficulty to examine the os and cervix uteri through a bilvalve speculum. These parts presented a remarkable and startling appearance. They were entirely covered with a soft, sprouting tissue of purplish-red color, which bled upon the least touch, and which I at once concluded was malignant in character.

Etherizing the patient, I scraped away a considerable quantity of this fungoid mass and applied fuming nitric acid freely to the remainder, extending the application likewise to the entire interior of the uterus. The superfluous acid was neutralized by solution of bicarbonate of soda. A pledget of cotton saturated with carbolized glycerine placed against the os completed the work. This operation was followed by a good deal of pain and tenderness in the region of the uterus, but they subsided in three or four days. The carbolized glycerine tampons were used daily, being preceded each time by tepid vaginal douches of carbolized water. The use of the dilator was also continued.

A portion of the tissue removed by the curette was subsequently shown by microscopic examination to be non-malignant and to consist only of hypertrophied villous and connective tissue.

January 11, the vagina was normal in size, and the os and cervix nearly normal in appearance, though tender to the touch. The patient continued to introduce the dilator occasionally and to wear it for short periods during the following six or eight months, but she finally dispensed wholly with its use. In a letter, written in the summer of 1878, she informed me that she had not used the instrument for more than a year and that she had no longer any occasion for it, the parts showing no further tendency to undue contraction; and added that her general health was fully restored.

And now, after the lapse of five years since that last report, she comes to be examined again. Why? Because she has a prospect of a second matrimonial alliance, and very properly desires to know whether she is in suitable condition to enter into it.

I have now introduced my index finger into the vagina, and find the passage sufficiently capacious and free from tenderness to the depth of two inches, and here I reach a narrow opening into which I can pass the finger-tip, but not without causing considerable pain. This opening is not the os uteri—it is simply a narrowing of the vagina; and from its position I feel very sure it is at the site of the second membranous obstruction removed eight years ago. The patient has failed—as I feared she would—to pass the dilator through this part, and indeed it must have been difficult to do so since the occluding band was situated so near the os uteri.

I find the parts so tender that in order to make a satisfactory exploration I will be obliged to etherize the patient. (Ether administered.)

While the patient is being anæsthetized I will take occasion to say that she mentioned to me in the ante-room her suspicion that something else was wrong with her—she feared she had a fistula, and based her anxiety on the fact that offensive gas sometimes escapes from the vulva. Inasmuch as air may come from the vagina—sometimes noisily—without the existence of a rectal fistula, I shall not feel at all sure of the existence of the latter unless I can demonstrate it beyond doubt. She is now unconscious, and I pass the finger through the constricted part of the vagina, lacerating the edges of the opening somewhat in doing so. Here I feel the cervix uteri, smooth of surface, and normal in position and consistence. Pressing the tip of the finger backward toward the rectum I feel a very slight prominence at one point, as though the surface were a little roughened. Keeping the finger against this spot I now introduce a uterine sound into the rectum, and allow its bulbed extremity to glide along the anterior wall until now I feel it against the finger. Clearly, here is a recto-vaginal fistula, and it seems to be fully a quarter of an inch in diameter. It is situated at a point about three inches above the anus, and almost on a line with the os uteri. It seems unaccountable that this opening should not have transmitted anything more tangible than intestinal gas. Perhaps our patient's observation upon this point may have been erroneous. I have grave doubts about the curability of this fistula. I also doubt the propriety of attempting its cure, taking into consideration all the circumstances connected with the case. I will advise her to not marry. So long as she remains single her physical condition need trouble no one but herself, and that not sufficiently to justify her in undergoing painful and dangerous surgical procedures.—*Western Medical Reporter.*

The Management of Abortion.

In a paper published in the St. Louis *Courier of Medicine* for August, Dr. Walter Coles gives the following as his treatment, which we endorse:

"Let us suppose that we have been called to a case in which the embryo has just escaped during the third month and the secundines are retained. Under such circumstances there is generally considerable hemorrhage going on, and the first thing in order is to check it. Of course the most effectual and desirable method of so doing is to empty the uterus and cause it to contract. A teaspoonful of fluid extract of ergot is administered, and the accoucher at once examines the uterus. If it be practicable by digital manipulation, or the aid of the forceps, to deliver the placenta, this is a fortunate circumstance which should be availed of on the spot. But if the os is too contracted to admit the finger, or even if patulous and the membranous placenta is so adherent as only to be detached in fragments, it is better not to disturb it for the time being, rather than resort to immediate and forcible extraction. We should, however, be equally far from pursuing a *passive* policy. The hemorrhage should be controlled by means of a tampon, aided by ergot, supplemented by a full dose of tincture of opium—the latter being especially beneficial as a soothing stimulant after blood loss. A tampon ought always to be applied with the aid of a speculum, that of Sims being the best. There is a great deal in the method of tamponing; it should be carefully packed over the os and around the cervix. The best material is old cotton muslin torn into strips; I prefer to put it in dry. Sponge is of very little service as a tampon; it absorbs the blood and permits it to flow through.

"In most cases thus managed, the physician will find on removal of the tampon twelve hours later that the secundines have either escaped entire, or else are presenting at the os, whence they may be readily removed by very slight manipulation. But in case this can not be done without violence, it would be proper to wash out the vagina and again tampon, with the expectation that under the excitation of the plug and the continued influence of ergot, the uterus will by its contractions detach and expel its contents. If at the end of twenty-four or thirty-six hours there is no indication of dilatation, it will be quite time enough to consider the propriety of artificial dilatation and extraction. If the internal os continues closed, it is pretty conclusive evidence that the placenta is still adherent and hence not extensively decomposed. Lusk recognizes this condition of the internal os as a valuable indication—a fact pointed out by Hunter. He remarks that 'when decomposition has once set in, the os internum will, as a rule, allow the finger to pass into the uterus.' Such being the case, we have less reason for being in a hurry when the uterus is closed than if the inner os were lax and the discharges offensive; under the latter condition of things the practitioner should lose no time in emptying the uterus of all decomposing material, provided he can do so without inflicting too much violence on the organ itself.

. . . .

"We are assured by the advocates of immediate removal that this feat is very easy of accomplishment—a thing which the merest tyro may perform, but most of our leading obstetrical authorities entertain a different view of the difficulties and dangers involved. Playfair, while admitting the desirability of emptying the uterus when feasible, goes on to say: 'Cases, however, are frequently met with in which any forcible attempt at removal would be likely to prove very hurtful, and in which it is better practice to control hemorrhage by the plug or sponge tent and wait until the placenta is detached, which it will generally be in a day or two at most. Barnes reiterates the same advice, and cautions us that 'we must not persevere too pertinaciously in the attempt at removal lest we inflict injury upon the uterus.' The same author, recognizing the fact that the placenta after abortion quickly undergoes retrograde changes whereby its adherence to the uterine wall is weakened, thereby facilitating its removal, remarks that 'the consulting practitioner here occasionally reaps credit which is scarcely his due. He is called in perhaps on the third day, or later, when the adhesion of the decidua to the uterus is breaking down. He passes in his fingers and extracts at once; but had he tried the day before he might have failed like the medical attendant in charge.'"

"Whenever there is serious and persistent hemorrhage threatening to exhaust the patient, active interference is of course demanded. Or if there is an offensive discharge and an elevated temperature together with rigors, we have good reason to apprehend blood-poisoning from the absorption of putrefying elements within the uterus. Under such circumstances it would be proper to explore the interior of this organ, dilatation being resorted to if necessary. For this purpose the tupelo tent is certainly far superior to the sponge or sea-tangle. It has all the dilating qualities of sponge, while it is cleaner and can be introduced more readily, even without a speculum if desired. It has also the advantage over the sea-tangle in that it can be procured in larger sizes and is less liable to slip out of position. Whenever full dilatation is required the tupelo is preferable to all other tents. The uterine cavity having been exposed, all fragments of secundines should be carefully dislodged with either the finger or curette, after the manner so well described by Lusk and Munde, and the organ washed out with some disinfectant fluid. Where there is a tendency to bleeding, tincture of iodine answers an excellent purpose, and is cleaner than perchloride or persulphate of iron as recommended by Barnes. Where the disintegrating fragments are small, repeated irrigation of the uterine cavity (the os being patulous) will generally suffice, as they usually melt down and come away with the discharges. It is not safe to scrape the uterine surface more than can be avoided, for fear of opening up fresh avenues by which septic materials may reach the system, since we know that nature interposes a bar to infection by glazing over denuded surfaces and closing gaping vessels. For this reason Lusk remarks that 'fatal results are, however, rare, as decomposition is usually a late occurrence, setting in as a rule, only after protective granulations have formed upon the uterine mucous membrane and after the complete closure of the uterine sinuses.'"

The Extract of Malt.

In these days, when physiological therapeutics are so much in vogue, the Extract of Malt ought to receive general attention from the profession. There are few remedies which, to a greater extent, offer *a priori* grounds for their use. Malt-sugar, dextrine, diastase, phosphates, etc., form its constituents, the importance of which to the digestive process need not be discussed. The clinical evidence, too, which has sanctioned the physiological claims of the malt extract, is abundant. Authorities abroad (it is officinal in Germany) and at home, emphatically recommend its remedial qualities. There is reason to believe that in the South and West the Extract of Malt has not been used to the extent its merits call for. In this locality, until within a year or so past, it was almost a curiosity in therapeutics. It has grown so rapidly in favor, however, that there are few practitioners in this vicinity who do not constantly prescribe it, and the verbal testimony as to the results obtained from it is abundant and decided.

Our object in writing this present note is not only to call attention anew to the use of the malt, but to ask for written reports. The range of its application is so extensive that abundant opportunities present themselves for every one to determine its value.

In a paper published in a February number of this journal,* by Douglas Morton, M. D., the writer showed the extremely beneficial effects which had accrued from the use of the Trommer extract in several cases of tubercular consumption. Comparing the malt with cod-liver oil as a nutritive, he thought perhaps it was inferior to that agent, but it compensated for this by being applicable in a far greater number of cases. This is, in fact, its great strength. It is not unpleasant to the palate, and is easily retained by the most delicate stomach. It is indicated in all diseases accompanied or caused by impaired nutrition, simple or tuberculous, acute or chronic. In the convalescence of fevers, pneumonia, bronchitis, etc., the wasting diseases of children, joint affections, the emaciation accompanying uterine disorders, certain forms of dyspepsia, neuralgia—in fact, in cases where we would expect *good medicines* to be beneficial, the malt extract alone, or at times combined with iron, the hypophosphites, etc., will give most pleasing results.—*Louisville Medical News, April 27th*, 1877.

Paracentesis Pericardii.

THE history of the operation of paracentesis pericardii was briefly related from its first suggestion by Riolan in 1649. (*British Med. Jour.*, *Med. Chron.*) Its practical introduction was traced to Dr. Rovers, of Barcelona, who operated successfully in two cases in 1819. In 1841 there was a remarkable series of cases in an outbreak of scurvy in Russia, in which the pericardial effusion was composed mostly of blood. Nine were operated upon and six recovered. In 1854 Trousseau's essay was published upon some cases of his own and of M. Aran, which revived interest in the subject. In 1866, Dr. Clifford Allbutt introduced the operation to this country, and it was performed by Mr. Wheelhouse and Mr. Teale. Rosenstein, in 1871, made a great practical advance in operating by free incision with drainage. A complete list of the recorded cases up to date was given in a tabular form, with the addition of several cases hitherto unpublished, making seventy-nine cases in all. Of these, fifty-six had been in males, for which no reason could be assigned, and they had been uniformly distributed over the early ages of life. Phthisis and pleurisy had been associated with twenty-three cases, rheumatism with eleven, scurvy with nine, general dropsy with five, injury with three; in twelve cases there had been no associated disease. The fluid had been in fifty-eight cases serous, in twelve purulent, in nine bloody. The amount evacuated had been in forty-six cases less, in thirty-three cases more, than a pint. It was not rare to evacuate as much as two or three pints. The largest quantities had been found in the scorbutic cases, and from one of these about ten pints had been evacuated. It had been sometimes observed that great relief was given by the withdrawal of one or two ounces, and that this had been followed by the absorption of the rest of the fluid. Dieulafoy's careful experiments had led to the selection of a place in the fifth left space, about an inch from the sternum, as the safest point for puncture. The following conclusions were drawn: 1. Paracentesis pericardii is not only justifiable, but an operation which may be safely undertaken with ordinary precaution, for only one case is recorded in which the operation was in itself fatal, and with this exception, all the patients were greatly relieved by the removal even of small amounts of fluid, and many recovered completely who would probably have died had the operation not been performed. 2. The most suitable place for puncture is, in ordinary cases, in the fifth left intercostal space, one inch from the edge of the sternum, but if the pleura be adherent, the puncture may be made safely much further out, and even in the sixth space. 3. The instrument employed should be a trocar and canula, with or without aspiration. 4. The operation may be performed with advantage, not only in the pericardial effusion of rheumatic or primary origin, but also in those which occur in the later stages of general dropsy, if it should appear that the fluid in the pericardium is adding to the difficulties under which the heart is placed. 5. Purulent pericarditis is best treated on general principles, like empyema. 6. The pericardial sac may be safely opened and drained. 7. This treatment, moreover, appears to be the only one which offers the slightest hope of recovery. 8. The results do not seem to be as unfavorable as those of empyema, for the walls of the cavity are better able to contract rapidly, and thus permit its complete obliteration.

Microscopy.

Microscopes for Physicians.

WE frequently receive letters from physicians, contemplating purchasing a microscope, inquiring as to the quality and cheapness of the instruments of various makers. The majority of these correspondents wish an instrument as cheap as is consistent with efficiency.

Nearly all the makers of this country make microscopes of excellent quality. The instruments of Jos. Zentmeyer, of Philadelphia; Queen & Co., of the same place; Bausch & Lamb, of Rochester, N. Y.; Gundlach, of Rochester; Tolles, of Boston; Spencer, of Geneva, N. Y., etc., are not inferior to those made by the best makers in Europe; and the student's microscope of any of these makers can be relied upon as being fully competent to any work a physician would have to do. The prices range from $50 to $75. The objectives furnished with the stand are usually a one-inch and a quarter or fifth-inch—the latter being about 75° angle of aperture, and able to resolve the pleurosigma angulatum.

The Becks, of London, England, who have a branch house in Philadelphia, managed by Mr. Wm. H. Walmsley, undoubtedly, however, excel all other makers in combining cheapness and good quality in the lower grade of microscopes. They have a grade of instruments they style the *Economic*, which we regard as remarkable for cheapness and efficiency. In one of the numbers of these, which has the stand made of brass, the tube full size, inclining at any angle, rack and pinion for coarse adjustment, a very delicate fine adjustment, a mirror swinging to either side for oblique illumination, and other desirable features, the instruments sell for only $45 each. They are "things of beauty," and able to fulfill all the requirements of the physician. The objectives that accompany each one are an inch and a quarter inch—the latter of 75° angle of aperture, resolving the p. angulatum easily. In fact, the objectives are the same that are furnished with the more expensive stands.

The Economic of the Becks is the cheapest and best microscope made. No one will have need of any more efficient instrument other than the professional microscopist, who seeks for such lenses as represent the highest perfection of the optician's art, that he may resolve lines that have never been resolved before. Such an individual we might recommend to Tolles, of Boston, or Spencer, of Geneva, N. Y., who would charge him from $75 to $250 for a single objective without any stand. We have not a few of those fine glasses in our cabinet, but we never use them for *practical work*—their high angle unfitting them for such use.

Microscopes are advertised for $25, but their use is necessarily limited. They are accompanied with either only a single objective of low power, or a French commercial lens' which is so constructed that its three glasses can be used together, representing a medium power, or a part of them only employed, representing a low power. The commercial French objectives, however, although achromatic, are poorly corrected, and are very deficient in resolving power. No one who had ever used better would be content with them. They are but an aggravation.

In commending the *Economic Microscope* we have no other object than to serve our subscribers, who often consult us as to the merit and cheapness of the microscopes of various makers. We hope those who have written to us, and have received no reply from us, in consequence of our time being so fully occupied with pressing duties, will accept what we now say in the *Microscopical Department* of the NEWS as an answer to their queries. We feel assured that no one who purchases the *Economic* will be dissatisfied with it, so long as he limits himself to *practical work*. Of course when one wishes to try his skill in resolving the lines of Hobert's test plate, or of amphipleura pellucida, he will need the objectives of the finest construction and the widest angle of aperture, which are very costly; but for the large part of scientific investigation the *Economic* is abundantly able to subserve all purposes, and is the cheapest instrument made.

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Tubercular Inoculation.

DRS. BAUMGARTEN AND ARNDT have made some new experiments lately which are not without interest, with a view of determining the local effects of tubercular inoculation.

A series of rabbits were inoculated with fragments of tubercular matter inserted into the inner chamber of the eye through a wound made into the superior portion of the cornea. These animals were successively killed and in such manner that the progress of the ocular lesion, produced by the insertion of the septic foreign bodies (the tubercular matter inoculated came indifferently from man and animals) could be appreciated from day to day.

The day following the inoculation nothing was discovered but the irritation produced (travail irritatif), and which favored the encapsulation of the foreign body. The second day it was seen that the number of the *bacilli of Koch* contained in the foreign body is much more considerable (a proof that the culture medium is propitious to the pullulation of the parasite.) On the circumference of the body there are manifested the first indications of a process of sacculation, characterized by the apparition of granulation tissue. The third day this granulation tissue is found adhering to the iris and to the cornea, and a few bacilli can be distinguished in the one and the other of these membranes.

The fourth and fifth day the invasion of the bacilli becomes more and more distinct; the parasite has infiltrated the corneal tissue and that of the iris, both in the protoplasma and the fixed cellules. Otherwise nothing is changed in the reciprocal rapport of the elements; they are not even softened; in short, the tissues preserve their constitutional character The sixth day the iris and the cornea, although not modified in their texture, present in places small specks formed by the agglomeration of bacilli. In these specks cellules may be distinguished which are neither blood globules nor leucocytes, but which have a great analogy to the epithelioid cells. With this exception the tissue of the iris is perfectly recognizable.

Little by little the invasion of the bacilli is accomplished in every direction around the first tubercular focus of the iris. In the neighborhood of this focus there appear rudimentary tubercules, microscopic, formed by the agglomeration of epithelioid cellules in the groups of bacilli. Finally, on the eleventh day, the tuberculization of the iris and cornea are visible to the naked eye.

This persistence of the fundamental characteristics of the elements and their reciprocal relation, despite the tuberculous impregnation, is certainly a very remarkable fact. It is nevertheless clear, although Baumgarten makes no allusion thereto, that the disintegration of the tissue must be an accomplished fact, or at least very nearly so, when the lesion becomes visible to the naked eye, that is to say, on the eleventh day.

The same authors have further studied the mode of generalization of tuberculosis; at the end of five weeks they extirpate the kidney, which presents no trace of alterations, and make incisions therein. They now find that a certain number of glomerules, either isolated or tributaries of the same circulatory regime, are filled with bacilli. These are so abundant that they seem to penetrate by injection, as it were, into the vascular tuft of the glomerule. Consecutive to this local glomerular infection there follows the infiltration with bacilli of the neighboring structures.

This last fact, if new experiments will confirm it, demon strates the migration of the bacilli by the blood ways.—*Centralblatt f. Med. Dyssenschaft*, 1883, *No.* 42. *Progres Medicale.*

Gleanings.

A Contribution to the Pathology of old age is the subject of an article by Somerbrodt from his experience in the Pensioners' Hospital at Berlin from 1873 to 1877 (*Boston Med. and Surg. Jour.*) Twenty-five autopsies were made on men over seventy years of age. Acute disease, as has been generally noticed, occurs but rarely, and when present is generally connected with the organs of respiration. The heart was affected in but few cases, while in every case evidences of endarteritis were to be seen. Chronic inflammatory changes were frequent in the meninges, while hemorrhage in the substance of the brain was rare. Gall stones, which in extreme old age never caused colic, were found in eight cases. Malignant disease (cancer of the prostate) presented itself but once. The course of such troubles is probably run in previous decades. Pleural adhesions were often met with, but exudation into the pleural cavity very seldom. In about one-half the cases tubercles, that is, cheesy centers, were scattered throughout the lungs, and this was notably oftener the case in persons who were quartered together in barracks than in those who had a separate dwelling. This fact, the author thinks, points to the contagiousness of the disease. In general its course was run almost without symptoms; especially was it to be remarked that hæmoptysis was absent in the majority of cases.

Diagnosis of Peri-nephritic Abscess.—In an excellent paper on Peri-nephritic Abscess (*Am. Jour. Med. Scic.*, April, 1883), Dr. J. B. Roberts gives the following tabular statement of symptoms to assist in the localization of the disease and its diagnosis.

All anterior regions.—Pain, tenderness, swelling, œdema and pointing in front and side of abdomen.

All posterior regions.—Pain, tenderness, swelling, œdema and pointing in loin.

Upper tracts.—Pleuritic friction, pleural effusion, empyema, expectoration of pus; dyspnœa; supra renal involvement; solar plexus involvement. (On right side.) Bilateral œdema of legs; jaundice; fatty stools; persistent vomiting; rapid emaciation; ascites.

Middle tracts.—Albuminuria and casts; supra-pubic, scrotal or vulvar pain or anæsthesia; suppression of urine; uræmia; pus in the urine; œdema of scrotum or varicocele (especially in left side).

Lower Tracts.—Flexion of hip; pain or anæsthesia of front, inside or outside of thigh; retraction of testicle; pain at knee; scrotal or vulvar pain, or anæsthesia, without accompanying albuminuria; unilateral œdema of legs; abscess of sinus near Poupart's ligament; constipation (if left side); involvement of chyle receptable (if right side).

Chronic Cystitis.—Dr. Duncasse (*Gazette des Hopitaux —N. O. Medical and Surgical Journal*) regards corn-silk as par excellence the remedy in chronic cystitis, allaying the inflammation and facilitating the expulsion of gravel. So marked also are its anæsthetic properties in such cases that the writer thinks it must possess some alkaloidal narcotic substance. This anæsthetic action is not marked in acute cystitis. He quotes with approval the conclusion of Landrieux regarding the stigmata maidis as follows: 1. Not only are the different preparations of stigmata maidis useful as a modifier of the secretions of the urinary passages, but these same preparations can be equally considered as an incontestable diuretic agent. 2. Diuresis is rapidly produced, and in three or four days the augmentation of the amount of urine becomes evident and considerable. 3. The diuretic effects are observed not only in the organs of urinary secretion, but also in disturbances of the circulatory system (diseases of the heart and blood vessels). 4. The pulse is regulated, the arterial tension is increased, while the venous tension is diminished. 5. The medicament does not cause the least disturbance, either of the nervous system or the digestive functions. 6. Tolerance for this drug is incomplete and absolute, and medication in chronic diseases can be continued without inconvenience for a month or six weeks, according to my observations.

The Bread-Pill Cure of Hysteria.—M. M. Landouzy and Ballet, in the *Revue Mensuelle de Medecine*, give the history of an hysterical patient to which it is well to give an extended publicity, not because it presents any novel feature but as a proof of the scientific errors of those ill-trained minds which attribute the cure of hysteria to supernatural influences. An hysterical patient, twenty-five years of age, who had previously suffered from chorea, was received in the wards of the Charite. There was very marked contraction of the lower limbs, and the patient was unable to execute the slightest movement, not being even able to raise herself in bed. After one or two hypodermic injections of morphia, at her express desire, she was told that she should have a more energetic remedy, and must use it cautiously. On October 7th, bread pills were prescribed, and the next morning she related that, wishing to poison herself, she had swallowed the pill; this was accorded, and resulted in her complete recovery. Two days later on she helped to clean the wards. In a month's time she left the hospital.—*Brit. Med. Jour.*

The Bacillus of Tuberculosis in an Abscess Near the Anus.—Dr. Robert C. Smith writes in the *British Medical Journal*: Six months ago, a young clerk, aged twenty-one, came under treatment for hæmoptysis and other signs of phthisis. After about three months' treatment he became strong enough to resume his employment, at which he continued up to the commencement of this month. I saw him on the 5th, when he was suffering acutely from an abscess in the neighborhood of the anus; and, fearing lest it might burst into the bowel and give rise to a painful blind internal fistula, I opened the abscess at once and let out a quantity of thin, curdy, fœtid pus. A microscopic examination of this fluid by a half-inch object-glass, after the usual process of staining, revealed the presence of great quantities of well-marked, typical, tubercle-bacillus. Now the presence of these organisms in this situation is interesting, as they tend to throw some light on the well-known connection between fistula and phthisis.

BIEDERT DRAWS THE FOLLOWING CONCLUSIONS in *Deut. Med. Woch.*, Nos. 3–5, 1883. (*Med. and Surg. Reporter.*) 1. A very large number of stomach and intestinal affections in nurslings are so closely related to their method of feeding, that, simply through an alteration in the feeding, cure may be effected, and this even in very severe cases. 2. The quantity of nourishment is important. 3. Nourishment often requires to be given in a very diluted condition. 4. The proportion of albumen to fat in the food is a very important element. Thus, a mixture of albumen with emulsionized fat in greater proportion than it is found in cow milk, and more nearly approaching the proportions in human milk, greatly facilitates its digestion. 5. It must not be forgotten that occasionally a morbidly diminished fat resorption may occur, which necessitates either a diminution of the proportion of fats, or—remembering the facts as to albumen digestion mentioned in 4—a proportion of fats between that in cow milk and that in human.

UNRECOGNIZED SUICIDE AND HOMICIDE.—Notwithstanding all the blaze of light, moral, religious, intellectual and electric, of this nineteenth century, one-half of the premature deaths may be attributed, no matter how the health statistics report it, to suicide or homicide. When a man dies of *mania a potu*—

(There's Lord Mount Coffee-house,
The Irish Peer,
Who killed himself for love of me,
With wine last year)—

it is not reported suicide, but is just as much that, from spirit, as in the case of the poor wretch who has been taken out of the docks to the morgue, from water.

Fifty out of every hundred men in this country who die in the maturity of manhood, between thirty and sixty years of age, die, then, of their own vices or follies. The cause or manner of going off may be different, but the result is the same.—*The Sanitarian.*

CAUTERIZATION OF THE CLITORIS IN THE TREATMENT OF HYSTERIA.—Dr. N. Friedreich (*Virchow's Archiv*) believes, with Baker Brown, that many cases of hysteria are caused by masturbation. Further, he is of opinion that in neuropathic females an over-sensitiveness of the sexual organs may exist, which acts upon the spinal and cerebral centers, causing hysterical symptoms, without there being actual, voluntary masturbation. He treats these cases by cauterizing the clitoris. The operation is most painful, but the results are so remarkable and agreeable that the patients, says Dr. F., never object to a repetition. Eight cases are reported, and all were ultimately cured. In two cases there were relapses, and the cauterization was repeated. In three other cases the cauterization had to be repeated. The disease was in all instances very marked, there being paralyses, general convulsions, hystero-epilepsy, etc. - *Journal of Nervous and Mental Disease.*

MERIT AND PATIENCE THEN, my boy, says the *Indiana Med. Jour.* in the guise of a father's letter to a son just about to begin the practice of medicine, is the course in pursue, in order to gain reputation and a large practice to the shortest possible period of time. These mushroom reputations have no solid foundation and are "no good." Let me entreat, then, in conclusion, to make haste slowly; to stick to your legitimate duties; to mind your own business; "whatever thy hand findeth to do, do it with all thy might." If you intend to make of yourself a physician, be a physician, study medicine; keep apace with the times and the collaterals of your science as well as you can; cultivate good common sense and sound judgment; beware of the voice of flattery; be honest and truthful; scorn deceit. Do all these things, and you will have no occasion to advertise in the newspapers in order to secure a reputation or a large practice.

A FORM OF VAGINITIS, occurring in women advanced in years and free from any suspicion of sexual relationships, is described by Dr. Despres in the *Centralblatt fur Gynakologie*, September 28, '83. (*Med. Record.*) It is dependent upon an incomplete incontinence of urine. The muscular walls of the bladder being atonic the organ is never completely emptied, and the residual urine excites a vesical catarrh. This leads to incontinence, and during sleep, particularly when the patient lies on her back, the urine trickles down into the vagina. There its presence sets up an inflammatory process, the more readily as the urine itself in these cases always contains a large quantity of pathological products.

The True Method of Protection From Plagues.—We should like to see branded on the public mind everywhere the sentiments expressed in the *Journal of the American Medical Association* by the editor, Dr. N. S. Davis. We copy the passage referred to, fully adopting its view as our own, with the exception that the prevalence of epidemic cholera always depends on unsanitary local conditions. In the earlier visitations of that disease in America, we have known of a number of instances of towns and villages being invaded by the scourge in spite of the best sanitary conditions, added to the supposed protection of quarantines. To yellow fever, however, we regard the views of Dr. Davis as entirely applicable. People should seek protection from it by home measures, and not depend on shutting the door against its possible entry from abroad. The passage alluded to reads as follows:

"If the summer should be characterized by a persistent temperature, decidedly above the average, and any place in Europe or America should allow such an accumulation of unsanitary influences as existed at Damietta, and in most of the centers of population in Egypt during the summer just past, they may rely, with much certainty, on reaping a harvest of death, either from epidemic cholera, or its equivalent. For notwithstanding all the theoretical assertions that the cholera can originate *de novo* only in the valley of the Ganges, there is nothing in the history of the past epidemics, nor in the known laws of nature, which goes to show that the same combination of high temperature, decomposing animal and vegetable matter and aggregations of unsanitary people, that give rise to cholera on the banks of the Ganges, will not just as readily produce it on the banks of the Nile, the Hudson, or the Mississippi. On the other hand, a strictly sanitary people, supplied with pure water and living on a clean soil, need suffer no great anxiety about a visitation of cholera at any time. We would have all the avenues by which infectious diseases could be introduced from infected places into our country, guarded by a rigid system of marine inspection, detention and care of the sick, and the thorough enforcement of marine hygiene in regard alike to ships, cargoes and passengers. But we would not have it forgotten that the safety of every community, so far as it regards the prevalence and fatality of infectious diseases, depends mainly on its own local sanitary condition.—*Pa. Med. Jour.*

ACNE.—Dr. J. Leslie Ormsby (*Can. Med. Record*): You will find the following treatment of acne to be the most satisfactory: The face should be steamed every night by holding it over a basin of hot water for a few minutes. The skin should be then well rubbed for five or six minutes with soap and flannel, or a soft nail brush may be used with advantage when the skin will bear it; the soap should then be sponged off with warm water. When the face has been dried, the following lotion should be applied, and allowed to dry and remain on all night: ℞ Sulphur precip., ʒ ii.; glycerini, ʒ ii.; spt. vini, ℥ i.; aquæ calcis, aquæ rosæ, *aa* ℥ iii. M.

In inveterate cases of acne the following will be found particularly serviceable: ℞ Sapo mollis, ℥ i.; spt. rectificate, ℥ iss.; ol. levandulæ, M xx.; aquæ ad., ℥ vi. M. Ft. lot.

The lotion should be applied with a piece of flannel and vigorously rubbed on the skin. It should be washed off and then the sulphured lotion applied. In treating diseases of the skin one should always bear in mind the late Prof. Hebra's admirable advice: whatever course be adopted, constancy and perseverance are of the utmost importance. He who is always changing his plan of treatment is sure not to attain his object so quickly as one who steadily and patiently applies whatever remedy seems best suited to his case.

GONORRHŒA OF THE RECTUM.—Thiry (*Presse Med. Belge*) believes in the reality of gonorrhœal inflammation of the rectum, an affection which is not recognized by many authors. In support of his opinion, he relates the following case: A woman, aged twenty-four, a clandestine prostitute, was admitted into the Hospital St. Pierre, Brussels, complaining of weight and shooting pain in the pelvis, pain in defecation, and a constant thick discharge from the bowel. Walking also was difficult. On examination, there was a well-marked funnel-shaped depression of the anus, the anal folds were obliterated, and the spincter was weak and dilated. A vaginal speculum of ordinary size passed easily and without causing pain. On washing away the abundant thick discharge, the lower portion of the rectum was seen to be acutely inflamed and studded with bright red points, which bled when wiped with wool. The follicles in the rectal folds were enlarged and discharged pus. The patient confessed that she had had relations with men who were suffering from clap. Solution of borax was used locally at first, afterward red cinchona bark was applied to the mucous membrane, and, finally, an injection of oak bark was used. Under this treatment, combined with sitz baths and the internal administration of iron, the woman recovered in about three weeks.

THE EFFECTS OF STRONG LIGHT UPON THE EYE—Little (*Ophthalmic Review*, July, 1883) reports two cases showing the effect of strong light upon the eye. The first was the case of a gentleman whose right eye had been exposed suddenly and for a moment to a very strong electric light. He was blinded for several minutes, and he suffered from intolerance of light and severe headache for some days. He complained of a mist and dark specks before the right eye, with vision of $\frac{20}{50}$. There was a distinct haziness over the optic disc and neighboring retina. The second case was of blepharospasm caused by lightning. A gentleman, aged fifty-six, while walking, was struck down by lightning, but was not rendered insensible. On rising, he found he could not open his eyes. Two days later Little saw him, and found marked blepharospasm in both eyes. He said his eyes were hot and painful. He remained in this condition for thirteen days, when he opened his eyes partially. He then steadily improved, and ultimately recovered with good vision and a normal fundus.

HYDROCEPHALUS WITH INFLAMMATORY ATROPHY OF THE OPTIC NERVE.—Leber ("Archiv fur Ophthalmologie," xxix, 1) reports a case of this nature in a young girl, aged fifteen and a half, and then reviews the five cases hitherto published. In these cases there was an almost exactly similar group of symptoms: a continuous flow of a watery fluid from the nose, in connection with long-continued severe brain symptoms, headache, epileptic attacks, vomiting, somnolence, attacks of unconsciousness, delirium, pronounced amblyopia, and blindness of both eyes from papillitis or its termination in atrophy of the optic nerve. In Leber's own case there was complete anosmia. In Nettleship's case there was partial anosmia, palpitation of the heart, and exophthalmus, and in Baxter's case there was hypertrophy of the thyroid gland. Leber thinks that the brain symptoms and blindness were due to hydrocephalus internus. An examination of the excreted fluid led him to regard it as cerebro-spinal fluid. This generally flowed from the left nostril.

SALICYLIC ACID IN SOFT CHANCRES AND BUBOES.—Autier (*Th. de Paris*) says: 1. The efficacy of salicylic acid in the treatment of soft chancres and buboes appears to us to be unquestionable. While not an absolute specific, it is, in our opinion, capable of being most advantageously employed. 2. Odorless, only slightly painful in its application, soluble in alcohol and glycerine, and leaving no stain on linen, it is preferable, in these important respects, to most other agents employed for the cure of the abovenamed affections, while perhaps inferior in certain other particulars to some among its rivals. 3. It may be resorted to in all cases, both when the sores are large and well exposed, and when they are sloughing extensively, or are reached with difficulty; and it is equally available in private and hospital practice.—*Med. and Surg. Reporter.*

HYDROCELE.—A radical cure in the case of hydrocele was accomplished by Mr. J. E. W. Walker (*British Medical Journal*), by injecting, through mistake, two drachms of liquor ergotæ (Battey) instead of the same quantity of tincture of iodine. There was no pain and no bad results followed. This occurred in 1875, and although previous to the accident there had been repeated tappings, no return of the abnormal secretion has taken place since. Seeing the good effect produced in this case, he has tried the same remedy in two other cases with equal success.—*Weekly Med. Review.*

POLLUTED WATER LOSING GROUND IN ETIOLOGY.—And now comes the editor of the New York *Medical Journal*, who discourses on this wise: "There are many gaps in our knowledge of etiology, and perhaps in few ways is this fact more forcibly if not strikingly shown than by the gradual renunciation that seems to be taking place of the general impression that contamination of the ingesta, and especially of the drinking water, is practically the one and only channel of typhoid fever infection." Such expressions are becoming quite frequent among medical observers and writers. We opine that the fecal theory will be shorn of some of its tentacles in like manner.

A REMARKABLE CASE OF CHRONIC HYDROCEPHALUS is reported from the Pathological Society of London (*Medical Press and Circular*), the most remarkable feature of which is that the patient, a female, lived to fifty-three years of age. She was of weak mind, had some powers of memory and a very violent temper. The head was twenty-seven inches in circumference, three or four inches over the average female head. The ventricles were greatly distended. A cyst containing two ounces of fluid lay under the cerebellum. She was never able to walk.

SYPHILIS.—Syphilis was introduced into Europe in 1492, and first treated by inunction in 1497. Paracelsus first gave mercury internally in 1570; and until 1812 in this country, there could be little doubt that mercury had poisoned fatally perhaps as many patients as had been killed by syphilis, which until 1836, when Wallace, of Dublin, published in the *Lancet* his account of the treatment of tertiary syphilis by iodide of potassium, must have been a terrible disease.—*Dr. Drysdale, of London.—Med. Times.*

Book Notices.

A MANUAL OF PRACTICAL HYGIENE. By Edward A. Parkes, M. D., F. R. S., Late Professor of Military Hygiene in the Army Medical School, Member of the General Council of Medical Education, Emeritus Professor of Clinical Medicine in University College, London; Edited by F. S. B. Francois De Chaumont, M. D., F. R. S. Sixth Edition, with an Appendix, Giving the American Practice in Matters Relating to Hygiene. Prepared by and Under the Supervision of Frederick N. Owen, Civil and Sanitary Engineer. In two Volumes. 8vo. Pp. 368. New York: William Wood & Co.

The first volume of this work forms the September volume of "Wood's Library of Standard Medical Authors." That the volumes will constitute a very valuable addition to the series of twelve volumes for 1883 we think will be assented on an examination.

There is an abundance of works upon all the various diseases to which frail humanity is liable. In fact, their number is legion, for every week there are more or less published. To notice the activity there is in issuing such works would impress one that in pathological investigations, and in the methods of treating diseases, the greatest progress was being made in medicine. But such is not the fact by any means—the advance that has been made in prolonging the average length of human life is ten to one in favor of the progress made in preventing diseases to that made in curing diseases. The profession understand far better, at this time, the causes of diseases and how to get rid of those causes than they ever did, and it is undoubtedly largely owing to this more perfect knowledge that the average duration of life has been set forward several years. Epidemics that used to sweep over the earth, decimating the inhabitants, are either robbed of their terrors or no longer prevail. Many inhabited places, noted for their insalubrity in former times, are now as healthy as other localities, and the dwellers live to a good old age.

But the profession have not attained to perfection in their knowledge of hygiene, or art of preserving health. There is yet much to be learned. Besides, what is known is known only by a few. The literature upon the subject is comparatively meager, and what there is of it is to be found largely only in periodicals.

The Woods, publishers, have issued the work of Dr. Parkes, no doubt, for the purpose, to some extent, to afford the general practitioner an opportunity to inform himself more fully in regard to practical hygiene. Every city and village of any size, nowadays, has its Board of Health. Besides, nearly every State has its State Board of Health. A physician who is not now intelligent in regard to the causes and prevention of diseases can not hold his position, even if he had no conscientious scruples in regard to being ignorant of a subject which so vitally involves the welfare of his patrons.

Everything that has relation to health and disease is treated in this work very fully. Some hundred and eleven closely printed pages are taken up in treating of water. And here, as well as during the consideration of air, food, and other topics, those having microscopes will be greatly interested in the cuts representing the various impurities which are to be found, but not the microscopist only, but those not having microscopes as well. Many of the plates are exceedingly interesting and valuable—the figures usually being very correct, and not to be found in many works. Methods are described for determining the nature and quantities of materials dissolved in any given water—as earthy and alkaline carbonates, iron, silica, alum, etc. Also the various kinds of water are described, as river water, well water, upland surface, etc.

Following the consideration of water, the author treats of the air as fully. After it, he devotes many pages to ventilation, then to food, etc., the subjects being too numerous to mention them. In treating of the diseases of flour, etc., there are numerous cuts of fungi, parasites, acari, that are often to be found.

The reader will find the work very readable and exceedingly interesting. All but specialists of long time will be astonished at the vast amount of information they will find that they never heard of before.

A DIGEST OF MATERIA MEDICA AND PHARMACY. Forming a Complete Pharmacopeia for the use of Physicians, Druggists, and Students. By Albert Merrell, M. D., Prof. of Chemistry, Pharmacy, and Toxicology in the American Medical College, St. Louis, Mo. Member of the State Board of Health of Missouri. 8vo. Pp. 512. Philadelphia: P. Blakiston, Son & Co. Cincinnati: R. Clarke & Co. Price, $4.00.

The object of the writer of the following pages is, briefly stated, to present a condensed statement of such essential facts pertaining to each drug therein described, as will form the groundwork for their rational employment in the treatment of disease.

The author belongs to the class of doctors who style themselves *Eclectics*, but who are *eclectic* in name only, and not at all in practice. If they were truly *eclectic*, as are regular physicians, they would not formulate certain dogmas, as they do, and require their followers to prescribe in accordance with them, but would encourage every physician having become instructed in anatomy, physiology, pathology, chemistry, the various phenomena presented in diseases, and the action of medicines upon the system as learned from the experience of the most acute observers, to observe and study for himself and to be guided, in treating disease, by a rational experience. Such a mode practiced would constitute real *eclecticism;* but the *eclecticism* of the author of this work constitutes only a school, falsely called *eclectic*. In medicine there can be no school, since every regular physician knows no rule or dogma, but treats diseases in a rational manner, guided by an enlightened observation and experience.

In order to show that, in this enlightened nineteenth century, and in the part of it closely encroaching upon the twentieth, the author is of the opinion there are schools in medicine, as in theology, we will quote a line or so from his article on *Hydrargyrum*. After quoting from Bartholow and a few other writers, who say that "any considerable quantity of mercury, administered a sufficient time, will affect the quality and composition of the blood; the red globules are diminished in number; the fibrine loses its plasticity; the proportion of water is increased, and various effete materials, whose nature is unknown, accumulate," he proceeds to inform the reader that "these statements indicate a marked change in opinion among the thinking men of the school of practice represented by their eminent authors quoted. It is but just to say, however, that the faith in the specific antidotal virtues of mercury to the poison of syphilis remains firm with the majority of that school."

If Prof. Merrell would read what Bartholow, and the other "thinking men," whom he quotes, say about the injurious effects of opium, sulphate of strychnia, iodide of potassium, etc., when "any considerable quantity of them has been administered a sufficient time," he would probably be disposed to announce that "the statements indicate a marked change in opinion among the thinking men" of this same *school of practice* in regard to these remedies; and yet every regular physician knows that these "thinking men" prescribe these same medicines daily, as do all other thinking practitioners, and that when they thus write about their disastrous effects, they are merely describing the results when they are employed in excessive doses, or when improperly used.

But we do not desire to be understood that we do not think the work is without merit. Barring the fact that the author here and there expresses the notion that there are schools in medicine, each one of which, while possessing a very great deal of merit, has no little demerit also, we regard the work as quite meritorious, exhibiting on the part of the author much study and research. The various articles of the materia medica are briefly described as to their physical qualities, then the chemical properties are stated, if there are any, then the tests for it are given, and finally the therapeutic actions are stated. In brief, we have no hesitation in saying that the work is a very excellent treatise on Materia Medica, containing all that the physician or student would expect to find treated. In not a few respects it is of superior merit.

It has been well printed on excellent paper by the publishers, and unusually strongly bound.

CLINICAL CHEMISTRY: An Account of the Analysis of Blood, Urine, Morbid Products, etc., with an Explanation of some of the Chemical Changes that Occur in the Body, in Disease. By Charles Henry Ralfe, M. A., M. D., Cantab., F. R. S., London. Assistant Physician at the London Hospital. Illustrated with 16 Engravings. 16mo., Pp. 308. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: R. Clarke & Co. Price, $1.50.

This little work is designed to form one of the series of "Manuals for Students," in process of publication by the publishing house of H. C. Lea's Son & Co., a number of volumes of which we have already noticed. It is small enough to be easily carried in the pocket, so as to be conveniently referred to.

It has been written for practical purposes, as the author states,—furnishing students and practitioners with a concise account of the best methods of examining chemically, abnormal blood, urine, morbid products, etc., at the bedside or in the hospital laboratory. It is certainly well adapted to fulfill its objects.

Not further back than thirty-five or forty years ago, physicians had but little recourse to examination of the secretions and excretions in order to assist them in making out a diagnosis or to find indications for treatment, but now it is considered highly essential, and a physician who does not do so is regarded as neglecting most important adjuncts. What physician having a case of scarlet fever does not daily test the urine to ascertain the amount of albumen, if there be any, and whether it is increasing or decreasing? Or, in a case of lung disease, does not test the saliva in order to detect whether it contains broken-down lung tissue, epithelial cells from the bronchial mucous membrane, etc.?

The little work will be found most valuable in affording such instruction in Chemistry as is necessary in order to examine fluids and tissues with reference to primary alterations which constitute the first step in every disease. Blood, pus, milk, urine, gastric juice, saliva, feces, vomit, etc., with the changes that occur in them, and many things that we have not space to refer to, are treated of in the work in a very satisfactory manner.

Young physicians and second course students, we are sure, would not do without the work for many times its cost.

THE MEDICAL RECORD'S VISITING LIST; Or, Physician's Diary for 1884. New York: Wm. Wood & Co.

This is a very excellent Visiting List for physicians to carry in their pockets to keep memoranda of the visits made to their patients. As we have said before, a Visiting List will pay a hundred times its cost, besides its convenience. It dispenses with a day-book—a physician having one only needing a ledger.

Besides pages to keep accounts of visits, there are blank pages for Obstetric Engagements, Cash Accounts, Vaccinations, Register of Deaths, Special Memoranda.

There are also tables of doses, poisons and antidotes, emergencies, etc.

It is a very excellent work. Handsomely bound, with gilt edges.

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1. A TREATISE ON BRIGHT'S DISEASE OF THE KIDNEYS; Its Pathology, Diagnosis, and Treatment. With Chapters on the Anatomy of the Kidney, Albuminuria, and the Urinary Secretion. By Henry B. Millard, M. D., A. M. With Numerous Illustrations. 8vo. Pp. 246. New York: William Wood & Co.
2. A GUIDE TO AMERICAN MEDICAL STUDENTS IN EUROPE. By Henry Hun, M. D., Lecturer on Diseases of the Nervous System in the Albany Medical College. 12mo. Pp. 151. New York: William Wood & Co.
3. A MANUAL OF GENERAL MEDICINAL TECHNOLOGY, Including Prescription Writing. By Edward Curtis, A. M., M. D., Prof. of Materia Medica and Therapeutics, College of Physicians and Surgeons, etc. 24mo. Pp. 234. New York: William Wood & Co.

We are in receipt of the above valuable works, which came too late to receive attention in our present issue. They will be noticed in the next number. The titles, which we have copied, give an idea of their character.

Editorial.

CLOSE OF THE SIXTEENTH VOLUME.—This number of the MEDICAL NEWS closes the *sixteenth year of its continuous publication*, and also completes its *sixteenth volume*. Since the journal began, January, 1868, to the present time—including the present issue—there have been published *one hundred and ninety-two numbers*. Although there are a few medical journals in the United States older than the MEDICAL NEWS, yet, compared to the average age of medical journals in this country, it may very properly be regarded as an old journal. The number is almost legion of the medical journals that have been projected since the first number of it was issued, which struggled along a few years—from one to five—and then discontinued.

We do not wish to boast. A medical journal that has lived for sixteen years—weathering the storms, battling the difficulties that have beset all journals during the first few years of commencing and becoming established—has no need of boasting. These years of existence prove that it has been a success, that it has met with prosperity. No college, or book or drug house has any connection with the NEWS. Some of the latter, that are reliable, advertise in it, and pay for their advertisements, but not one has a dollar invested in it, or the slightest control of it—the editor being the sole proprietor. Enemies in abundance have done their best to injure the enterprise, but happily their efforts have come to naught, and the injury they contemplated has redounded on themselves. Even some have tried to destroy the NEWS who, at first, started out as its friends, but these were thwarted to their confusion.

An injury to medical journalism in this country is the too great number of medical journals, and the numerous free publications that are issued for advertising purposes. New journals are started almost every month, and although the large majority of them discontinue in a year or two, yet they draw away from the old and established journals, while they do live, some of their subscribers, and diminish their patronage—taking from them about that amount of patronage that would enable them to pay their editors something like a remuneration for their labors, and their contributors for writing for them. And they no sooner cease to exist than others are projected in their place, which undergo the same experience. Our country, however, is a free one, and every one has a right to undertake doubtful ventures and lose his money.

It would hardly be thought that any physician would be content to receive gratuitously each month a few druggists' circulars, mainly devoted to advertising purposes, but containing a few recipes and a few selected articles, and take no regular medical journal for which he has subscribed and paid, but such is the fact. There are hundreds of practitioners in this country who read no other current medical literature than this stuff, and who, during many years of practice, never paid a dollar far a medical journal. How greatly would it be to the benefit of such doctors, as well as increasing the efficiency of medical journals, if they would discard the trashy material they receive and subscribe for a good medical journal.

In conclusion, we desire to thank our numerous friends for their patronage. We have not a few subscribers that have taken the MEDICAL NEWS from its beginning. We hope they may live yet many years, and continue to be subscribers. We entertain very warm feelings towards all of our patrons, and especially towards those who have been patrons for a long time. There are a few from whom, we regret to say, that we have not received the treatment that we had a right to expect. Some have been exceedingly dilatory in paying for their journal, and owe us large sums. Our terms are in advance, but, in order to accommodate, we have sometimes continued to forward the journal after the time for which they had paid had expired, for we know that, oftentimes, physicians are poorly remunerated. In return for our accommodation, we have not only not been paid, but have not received the slightest recognition—no attention being given to bills sent to them, or duns of any kind, until a collector would get after them. Others, having received the journal for a number of years, without paying anything, have moved away without notifying us, that we might continue to send the journal to the old address until we should learn accidentally of their removal, and then decline to pay for *the reason that they had not been receiving it.* We are happy to say, however, that we have discovered a way to protect ourselves from frauds of the kind.

We wish for all our friends a happy new year.

ACTION OF THE WEST VIRGINIA BOARD OF HEALTH.—We learn from the *New York Medical Journal* that a J. W. Davis, of Charleston, W. Va., succeeded in obtaining a diploma from the *American Medical College*, of St. Louis, on attending one course of lectures, by representing that he had previously attended thirteen months' medical lectures in the medical department of the University of Virginia, when, as it was afterwards proven, he had never attended upon any medical instruction, in any institution, previous to his matriculating in the American Medical College. The consequence of his fraud, it seems, was to bring the American Medical College into suspicion with the West Virginia Board of Health, which revoked the certificate which had been granted him upon the basis of his diploma.

At a meeting of the Trustees of the American Medical College, held August 25, a paper was adopted recounting the fraud which the said Davis had perpetrated upon the College, and containing a resolution revoking the diploma given him.

The action of the Trustees in the premises was communicated to the President of the West Virginia Board of Health, Dr. James E. Reeves, who, in a letter addressed to "Prof. George C. Pitzer, M. D., Dean American Medical College, St. Louis," writes as follows:

"Accepting this action of the Trustees as an earnest of their good faith and the promise of a strict compliance with the standard of requirements of the State Board of Health of West Virginia in the matter of medical education, diplomas of the American Medical College will hereafter be recognized by the said Board as a sufficient basis for registration in West Virginia."

After thus relieving the *American Medical College* from suspicion, under the ban of which it had been placed in consequence of the fraud which had been perpetrated upon it, and which was seemingly unavoidable, for Davis had presented certain "statements and papers," as evidence of the truth of his representations as to having fulfilled the requirements of graduation, which had all the appearance of genuineness, although they turned out to be false, the President of the West Virginia Board of Health proceeds to intimate that medical colleges hereafter which have been so unfortunate as to be imposed upon by the false representations of an individual, who is desirous to abbreviate the time, labor, and expense usually necessary to secure a diploma, will not be so easily dealt with by his Board. In the paragraph following the one which we quoted from his letter, he says:

"It is proper, however, that this notice be given: The State Board of Health of West Virginia has resolved, and so ordered, that in all cases hereafter where a recognized medical college shall have been found guilty, under any pretext whatever, of departing from its published curriculum and declared standard of requirements for graduation, the college so offending, notwithstanding promises of future faithful adherence to its rules relating to attendance on lectures and conferring the degree of Doctor of Medicine, shall be put on *probation* in this: that its alumni who may apply for registration must answer satisfactorily, under oath, concerning actual attendance on lectures, and the manner in which they obtained their diplomas, before they, the said applicants and graduates, can be registered, or the college granting such degrees recognized in West Virginia.

"Very respectfully,
"JAMES E. REEVES, M. D.,
"*Secretary.*"

We believe that medical colleges should be held to a strict accountability in maintaining the recognized requirements of graduation, but we can not understand why a college should be kept for a time on the "stool" of probation, or of repentance, as it is generally termed, because it happens to have been deceived by a scoundrel who may have brought with him forged papers to prove his representations. But we will not complain of the West Virginia Board of Health if it will enforce its resolution alike in the case of all schools. The President of the Board might venture to write the letter he did to the Dean of an eclectic medical college, as the American Medical College is, but would he write such a letter to the Dean of *Jefferson Medical College*, University of Pennsylvania, Harvard Medical College,. etc., if either one of them had been imposed upon? He might venture to do so, and if we should ever hear of his doing so, we will be pleased to give him the credit of being an impartial gentleman, who is disposed to courageously discharge his duty, as he considers it, whether we should agree with him or not as to the propriety of his acts.

A PEN PICTURE OF DR. CASPAR WISTAR.—Dr. John L. Atlee, in his address before the American Medical Association, thus describes this great teacher:

"Having had no opportunities for studying practical anatomy before matriculation at the University of Pennsylvania, I devoted myself more particularly to that branch in my first course of lectures, 1817–18. The chair was then filled by Dr. Caspar Wistar, one of the most able and accomplished teachers of anatomy which this country has ever produced. His amiable deportment and kind treatment of students made an impression on me which I shall never forget, and after the lapse of more than sixty-five years the thought of him kindles in my breast emotions of genuine pleasure. As I remember him, he was of medium stature, apparently about sixty years of age, and so impressive was his teaching of anatomy up to the time of his death, which occurred very suddenly in January, 1818, that his words remain with me yet. He was certainly a man of great personal magnetism, extremely courteous in his manners, and gentle in disposition; he was always ready to converse with the students and help them in their difficulties. It is no wonder that he was greatly beloved by the students. The announcement of his sudden death from disease of the heart, on the night after he delivered his last lecture, produced a shock among the students that I shall never forget.

"Just here, I may appropriately allude to the foundation of a social institution, long known in Philadelphia as 'the Wistar Parties.' Dr. Wistar had been in the habit of inviting to his house, on Saturday evening, men of learning and distinction, both citizens and strangers. The ability and social qualities of the professors of the University of Pennsylvania, and of the eminent medical men of Philadelphia, caused always the presence of a large infusion of medical science in the composition of his parties. After his death, these gatherings were revived and continued by his friends, and they were still known as 'Wistar Parties,' in honor of their founder. In this way originated the celebrated social gatherings which occupied so important a share in the social annals of Philadelphia. I remember my gratification when young at meeting some distinguished gentlemen from abroad, and many no less distinguished from our own country."—*Phil. Reporter.*

DEATH OF DR. LENTE.—We have learned with great regret of the decease of Dr. Frederick D. Lente, a highly distinguished physician of New York, and with whose name our readers are familiar.

Dr. Burchard, in a paper describing him, read before the New York Academy of Medicine, speaks of him as having been a most unpretentious and gentle person, standing on the very mountain-top of mental vision, and from his exalted observation taking in a broad conception of life, with all its incidental duties and responsibilities. "Extreme conscientiousness," he said, "might well be predicated of him as a distinguishing characteristic; his honor was as dear to him as his life. He was indefatigable as a student; retiring late and rising early, he turned to profit the midnight hours. Mere physical fatigue was to him no excuse for mental inactivity. When his tired limbs refused to carry him, he was often found, late at night or early in the morning, bolstered up in bed, surrounded with books and periodicals."

DEATH OF ROBERT B. TOLLES.—Just as we are closing our December issue, we learn, with deep sorrow, of the decease of this most eminent optician. He died at Boston, December 17, aged 62 years.

Mr. Tolles was the most eminent maker of microscopic objectives in the world. His skill was indeed great. He made lenses that for fineness and for resolving powers were not only unsurpassed but were not equaled by those of other makers, either in this country or in Europe. His genius was in making fine objectives.

His death seems to be an irreparable loss to science. In our next issue we will speak more fully of him.

THE USE OF THE GUM LANCET.—The profession is very much divided on the question of its use; some deprecate it altogether, for the very good reason that the tissue of the gum heals so rapidly, and that the tooth then has to force its way through cicatricial tissue. The solution of this question, as of many others, seems to lie in selecting the happy medium. As Dr. J. Morgan Howe says in the *Independent Practitioner*, November, 1883, when a tooth, just ready to pop through, is obstructed by the gum, we may lance it, but the indiscriminate resort to this procedure is to be deprecated.—*Reporter.*